1978

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THE SIXTH FISHERY CENSUS OF JAPAN

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Honolulu, Hawaii

1978

STATISTICS AND INFORMATION DEPARTMENT
MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES
GOVERNMENT OF JAPAN

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FOREWORD

This is a summary report on the Sixth Fishery Census which was undertaken in 1978. The report intends to introduce the survey organization, survey method and major findings of the Census to overseas readers.

In connection with the new order of ocean formulated in relation to the 200 miles fishing zone declared by many countries, Japan has now encountered various problems in respect to how to maintain the present level of fishery production, how to reform the present status of her fishing industry, and so forth.

Under such a circumstance, the Sixth Fishery Census carried out to clarify the present situation of fishery production structure, employment structure and infrastructure of marine fishery in order to provide the basic data to meet the various fishery development programmes in relation to "the era of 200 miles". The Census also tried to clarify the production structure of inland fishery.

The English versions of the fishery census reports have been issued since the Third Fishery Census undertaken in 1963, and this is the fourth one. In the present version, "Census questionnaires" used which were missing in the previous versions are attached to facilitate better understanding of the census methodology.

Last of all, as I intend to issue a similar report of Fishery Census in English whenever a Fishery Census is undertaken in the future, I would be most grateful if you could kindly let me know your suggestion as to how to improve the contents of the report.

September, 1980

A. Sekine

Akio Sekine
Director, Statistics and information Department,
Ministry of Agriculture, Forestry and Fisheries

CONTENTS

Page

I Census Methodology 1

1. Objectives of the Sixth Fishery Census 2
2. Surveys Undertaken in the Census 2
3. Survey Objects and Survey Items 3
4. Survey Organization 4
5. Appointment of Supervisors and Enumerators 4
6. Survey Method 5
7. Data Processing 6
8. Steps Followed for The Sixth Fishery Census 7
9. Expenditure 11

II Explanatory Notes for Census Terms Used 14

1. Marine Fishery Survey 14
2. Inland Fishery Survey 21
3. Fishery District Survey 22

III Major Findings 26

1. Marine Fishery and Mariculture 26

1.1 Number and Economic Characteristics of Marine Fishing Establishments 26

1.2 Structure of Marine Fishery 29

1.3 Fishing Boats 33

1.4 Fishermen 38
1.5 Fishing Employee's Households 40

2. Inland Fishery and Aquaculture 41

2.1 Inland Water Aquaculture 41
2.2 Number of Culture Establishments by Species under Culture and by Types of Culture 43
2.3 Inland Fishery 44

3. Background of Marine Fishery Production 47

3.1 General Condition of Fishery Districts 47
3.2 Number of Households and Size of Population in Fishery Districts 49
3.3 Land Area Reclaimed and Area under Fishing Rights Abandoned ... 50
3.4 Environment around Coastal Fishing Grounds 52
3.5 Use of Coastal Ground by Leisure Fishing 54
3.6 Facilities Related to Fishery Industry 56

IV Statistical Tables

(I) Statistics on Marine Fishing Establishments 64

1. Basic Structure of Marine Fishery 64

1.1 By Sizes of Management 64
1.2 By Types of Fishing Gear Mainly Employed 66
1.3 By Types of Management 68
1.4 By Types of Fishery Regulation System 68
1.5 By Water Areas Mainly Operated 68

2. Number of Marine Fishing Establishments 70

2.1 By Types of Fishing Gear Mainly Employed 70
2.2 By Types of Management 72
2.3 By Water Areas Mainly Operated 73

2.4 By Number of Fishermen Engaged at Sea During Peak Season ... 74
2.5 By Types of Fishery Regulation 74
2.6 By Number of Days Engaged in Fishing 75
2.7 By Sizes of Catch in Value 76
2.8 Number of Fishing Operator's Households 76
2.8.1 By Types of Fishing Gear Mainly Employed 76
2.8.2 By Types of Fishermen Engaged at Sea during Peak Season ... 80
2.8.3 By Number of Days Engaged in Fishing 81
2.8.4 By Sizes of Catch in Value 80
2.8.5 By Extent of Dependency on Fishery 82
2.8.6 By Types of Side-Business 83

3. Statistics on Mariculture 84

3.1 "Nori" Laver Culture 84
3.2 Oyster Culture 85
3.3 Pearl Culture 84
3.4 Pearl Oyster Culture 85
3.5 "Wakame" Seaweed Culture 86
3.6 Yellowtail Culture 86
3.7 Scallop Culture 87

(II) Statistics on Fishing Boats 88

1. Number of Fishing Boats 88

2. Number, Tonnage and Horse-Power of Powered Fishing Boats 90

3. Number of Powered Fishing Boats by Kinds of Equipment Installed .. 90

4. Number of Powered Fishing Boats by Water Areas Mainly Operated .. 91

(III) Statistics on Fishing Employee's Households 92

1. Number of Fishing Employee's Households by Types of
'Fishing Gear Mainly Engaged 92

2. Number of Fishing Employee's Households by Types of Side-Business 94

3. Number of Fishing Employee's Households by Working Status of Head of Household 95

4. Number of Fishing Employee's Households Engaged in Agriculture .. 94

(IV) Statistics on Fishermen 96

1. Number of Fishermen by Types of Household 96

2. Number of Fishermen by Sex and by Age Groups 97

3. Number of Fishermen by Types of Fisheries Engaged 97

4. Number of Fishermen by Types of Fishing Gear Mainly Engaged 96

(V) Statistics on Fishery Infrastructure 100

1. Facilities Related to Fishing Industry 100

2. Fish Markets 102

3. Fishing Ports 104

4. Ice-Making, Cold Storage and Freezing Plants 106

5. Fish Processing Plants 106

(VI) Statistics on Inland Fishery 108

1. Inland Water Aquaculture 108

2. Lake Fishery 112

3. Fisheries Cooperatives for Inland Fishery 114

V Appendix 118

1. Fishery Production of Japan 118

2. Fishery Statistical Surveys in Japan 127

Questionnaires Used in The Sixth Fishery Census

Form No. 1. Marine Fishing Establishment Survey 131

Form No. 2. Powered Fishing Boat Survey 133

Form No. 3. Survey on Base of Living of Fishing Employees 135

Form No. 4. Fishing Employee's Household Survey 137

Form No. 5. Lake Fishing Establishment Survey 139

Form No. 6. Inland Water Aquaculture Establishment Survey 141

Form No. 7. Inland Fisheries Cooperative Survey 143

Form No. 8. Survey on General Condition of Fishery District 145

Form No. 9. Survey on Fish Dealers 161

Form No. 10. Survey on Ice-Making, Cold Storage and Freezing Plants 163

Form No. 11. Survey on Fish Processing Plants 165

I Census Methodology

I. Census Methodology

1. Objectives of the Sixth Fishery Census

The Sixth Fishery Census was carried out to clarify the current status of the fishery production structure, employment structure and infrastructure of marine fishery in order to provide the basic data to meet the fishery development programmes. The census also tried to clarify the present situation of the inland fishery structure.

2. Surveys Undertaken in the Census

The Census consists of three surveys :

i) Marine Fishery Survey
ii) Inland Fishery Survey and
iii) Fishery District Survey.

Questionnaires used under each of these surveys are as follows.

Types of Survey	Questionnaires
(i) Marine Fishery Survey	Marine Fishing Establishment Survey (Form No. 1)
	Powered Fishing Boat Survey (Form No.2)
	Survey on Base of Living of Fishing Employees (Form No. 3)
	Fishing Employee's Household Survey (Form No. 4)
(ii) Fishery District Survey	Lake Fishing Establishment Survey (Form No. 5)
	Inland Water Aquaculture Establishment Survey (Form No. 6)
	Inland Fisheries Cooperative Survey (Form No. 7)

(iii) Fishery District Survey
- Survey on General Condition of Fishery District (Form No. 8)
- Survey on Fish Dealers (Form No. 9)
- Survey on Ice-Making, Cold Storage and Freezing Plants (Form No. 10)
- Survey on Fish Processing Plants (Form No. 11)

3. Survey Objects and Survey Items

3.1 Marine Fishery Survey

A. Survey Objects

Marine fishing establishments and fishing employee's households.

B. Survey Items

See questionnaries Form No. 1, Form No. 2, Form No. 3 and Form No. 4.

3.2 Inland Fishery Survey

A. Survey Objects

Lake fishing establishments, inland water aquaculture establishments and inland fisheries cooperatives.

B. Survey Items

See questionnaires Form No. 5, Form No. 6 and Form No. 7.

3.3 Fishery District Survey

A. Survey Objects

City, town and village, offices fisheries cooperatives, ice-making, cold storage and freezing plants, fish dealers and fish processing plants.

B. Survey Items

See questionnaires Form No. 8, Form No. 9, Form No. 10 and Form No. 11.

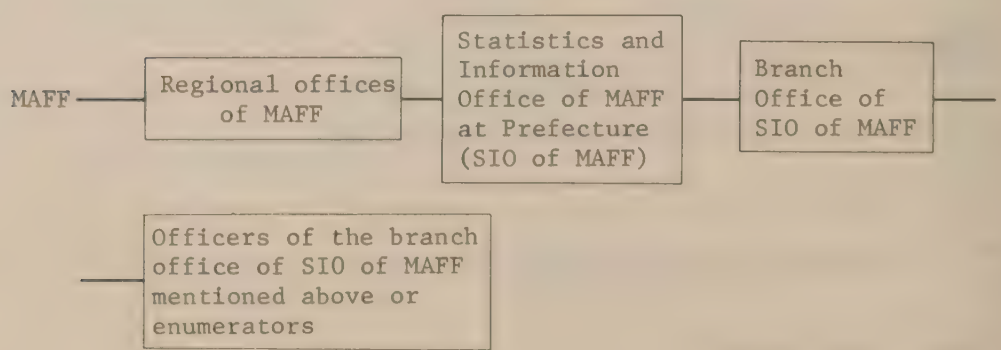
4. Survey Organization

4.1 Marine Fishery Survey and Inland Fishery Survey

These surveys were undertaken through the statistical organization of local governments as follows:

4.2 Fishery District Survey

As illustrated below, this survey was undertaken through the statistical organization of Ministry of Agriculture, Forestry and Fisheries (MAFF).


MAFF
Regional offices of MAFF
Statistics and Information Office of MAFF at Prefecture (SIO of MAFF)
Branch Office of SIO of MAFF
Officers of the branch office of SIO of MAFF mentioned above or enumerators

5. Appointment of Supervisors and Enumerators

As the Census was undertaken by means of complete enumeration to cover all survey objects as defined in 3 above, a number of supervisors and enumerators were temporarily appointed with the following conditions.

5.1 Marine Fishery Survey and Inland Fishery Survey

A. Appointment of Supervisors

In principle, a supervisor was appointed for each municipality.

B. Establishment of Enumeration District (E.D.)

Before the commencement of the census survey, enumeration districts (E.D.) were established in order that each E.D. may involve 10 to 30 fishing establishments and fishing employee's households.

C. Appointment of Enumerators

An enumerator was appointed for each E.D.

5.2 Fishery District Survey

As the survey was supervised by the chief of Branch Offices of SIO of MAFF, no supervisor was appointed. However, an enumerator was appointed in order that he may cover 35 fish dealers, 10 fish processing plants, 10 ice-making, cold storage and freezing plants or a fisheries cooperative respectively.

6. Survey Method

6.1 Marine Fishery Survey and Inland Fishery Survey

A. Preparatory Survey

A preparatory survey was carried out for a week starting from August 1st, 1978 for the identification of the survey objects and the preparation of a complete list of the survey objects. Such a preparotory survey was undertaken for each enumeration district (E.D.)

B. Census Enumeration

Census enumeration took place, by means of interviewing, for a week starting from November 1st 1978 based on the complete list

of the survey objects as prepared in the preparatory survey. During the course of census enumeration, however, the complete list of the survey objects was revised in order that it might cover all survey objects existing as of November 1st, 1978, as there might have happened some change between the date of the preparatory survey and that of the census enumeration.

6.2 Fishery District Survey

A. Establishment of Fishery District

Fishery district survey aims at clarifying existing fishery infrastructure and so forth within a same fishing community, where a fishery cooperatives is normally formulated. Therefore, fishery district was established in principle for each fishery cooperatives within an area of municipality. For the establishment of fishery districts, however, certain adjustment were made e.g. in case where the area of a fishery cooperatives extends over two or more different municipalities, it was divided according to the area of each municipality. And in case where that some of large fishery cooperatives in area they were divided according to the area of their branch offices.

B. Enumeration

Enumeration was done for each of the fishery district by means of interviewing or based on data available at the offices of the survey objects to get the information of infrastructure of marine fishery and so forth as of November 1st 1978.

7. Data Processing

Date processing for marine fishery survey and inland fishery survey was done by means of electronic computer, whereas that for fishery district survey was done manually.

8. Steps followed for the Sixth Fishery Census

To obtain meaningful results from the census a series of works were done in the implementation of the census. As a matter of fact, the preparatory works of the census commenced in April 1976, which was two and half years prior to the census enumeration. What was done at every step is illustrated hereunder. (Please see also a chart as attached at the end of this chapter)

8.1 April 1976 - March 1977 (1976 Fiscal Year)

A fishery census study committee and its subcommittees were set up within the Statistics and Information Department of MAFF to identify various problems encountered for the fishery industry and problems to be clarified in the Census. On the basis of these studies the basic design was worked out.

In parallel with the above works, a series of meetings with the participation of officials from the Fishery Agency were held to obtain the suggestions and requirements to the Census from the view point of the fisheries administration.

8.2 April 1977 - March 1978 (1977 Fiscal Year)

Every effort was made to finalize an overall programme of the census through the implementation of pilot surveys, pre-test survey and a full-dress pre-test survey as illustrated below. To examine the results of the above surveys a fishery census preparatory committee was set up.

A. Pilot Survey

Draft questionnaires were prepared and tested by the staff of MAFF themselves by visiting some fishing villages. During the course of such pilot surveys feasibility of survey method, survey items to be covered and the definition of survey items were examined.

B. Pre-Test Surveys

With the use of questionnaires revised based on the experiences gained in the above pilot surveys, pre-test surveys were undertaken by temporarily hired enumerators with respect to (i) how far such enumerators could precisely understand the survey contents, (ii) accuracy of responds obtained from the survey objects, (iii) the number of the survey objects which could easily cover by an enumerator and (iv) how to train and guide the enumerators in the actual implementation of the Census.

C. Full-Dress Pre-Test Survey

Based on the various experiences gained through both the pilot surveys and pre-test surveys an overall programme of the Census was worked out. To see the feasibility of such a programme a full-dress pre-test survey was undertaken in partial area of a prefecture. In other words, the full-dress pre-test survey was carried out in a small scale but in a same procedure to be followed in the actual census by hired supervisors and enumerators.

8.3 April 1978 - March 1979 (1978 Fiscal Year)

As a fishery census is authorized as a designated statistics by National Law of Statistics, its overall programme was submitted to National Statistical Council for approval. With the instruction questionnaires and tabulation programmes were finally determined. Then, the census was implemented as already illustrated in 6 above.

8.4 April 1979 - March 1980 (1979 Fiscal Year)

After scrutinizing of data collected through the questionnaires, data processing was done, and "Interim Report of the Fishery Census" was released in August 1977. In addition, of 16 volumes of the final reports to be issued the first 9 volumes were issued within this fiscal year.

8.5 April 1980 - March 1981 (1980 Fiscal Year)

In succession to the previous year, the remaining final reports, i.e. the 10th to the 16th volume will be issued within this fiscal year.

The contents of the all final reports are as follows.

Reports of the Sixth Fishery Census

Vol. 1 Statistics on Production Structure and Employment Structure of Marine Fishery

Sub Vol.1 Statistics on Combination of Type of Fishery of Marine Fishery

Vol. 2 Statistics on Infrastructure of Marine Fishery

Vol. 3 Statistics on Production Structure and Employment Structure of Marine Fishery by Cities, Towns and Villages

Vol. 4 Statistics on Infrastructure of Marine Fishery by Cities, Towns and Villages

Vol. 5 Summary Statistics on Marine Fishery by Cities, Towns and Villages

Vol. 6 Statistics on Fishing Boats and Crew of Marine Fishery

Vol. 7 Statistics on Inland Fishery

Vol. 8 Statistics on Inland Water Aquaculture by Species Under Culture

Vol. 9 Statistics on Inland Fishery by Cities, Towns and Villages

Vol. 10 Statistics on Establishments of Marine Fishery other than Fishing Operator's Household

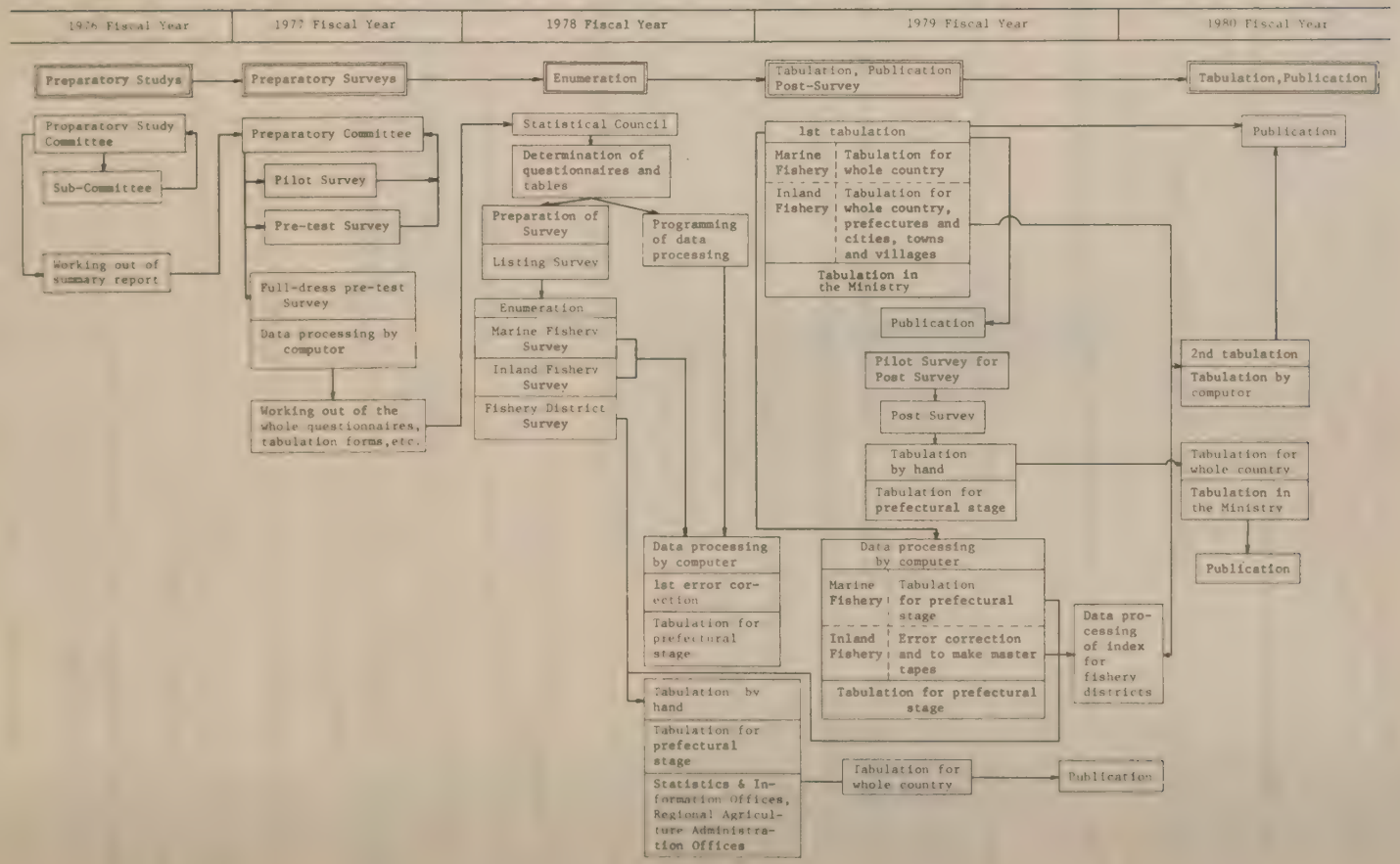
Vol. 11 Statistics on Labour Force of Marine Fishery

Vol. 12 Statistics on Fishery Districts Classified by Type of Socio-economic Conditions

Vol. 13 Statistics on Change of Fishery Structure of Marine Fishery between 1973 and 1978

Vol. 14 Maps showing General Condition of Marine Fishery of Each Fishery Districts

Working Steps Followed For The Sixth Fishery Census



Vol.15 Maps showing the Distribution of Inland Fishery by Prefectures

Vol.16 Summary Report Dealing with Major Findings Clarified in the Fishery Census

9. Expenditure

The total expenditure spent for the Sixth Fishery Census including expenditures for its designing, enumeration, data processing and publication accounted for 2,156 million Yen or some 10 million U.S. dollers.

The items of the account is as follows.

Unit: Million Yen 1/

Expenditures For	Total	1976	1977	1978	1979	1980
Total	2,156	7	38	1,491	495	125
Preparatory study	7	7	-	-	-	-
Preparatory survey on Marine fishery	32	-	32	-	-	-
Marine fishery survey	1,519	-	-	1,048	412	59
Fishery district survey	178	-	-	114	11	53
Preparatory survey on inland fishery	6	-	6	-	-	-
Inland fishery survey	337	-	-	290	37	10
Post survey	16	-	-	-	13	3
Letter of appreciation and gift to honarable enumerators	12	-	-	-	12	-
Others 2/	49	-	-	39	10	-

(Notes)

1/ 220 Yen was equivalent to 1 US doller as of July 1980

2/ Main component was travel expense paid to local government officials who attended to training courses.

Ⅱ Explanatory Notes for Census Terms Used

II. Explanatory Notes for Census Terms Used

I. Marine Fishery Survey

1.1 Fishing Establishment

Fishing establishment refers to an economic unit such as household, company, cooperative, etc. which engaged in capture and culture of aquatic animal and plants for the purpose of sale in order to gain a profit or income during one year prior to the survey date. However, fishing operator's households which engaged in fishing for less than 30 days were excluded.

1.2 Classification of Fishing Establishments by Type of Management

A. Fishing Operator's Household

This refers to a household which engaged in fishery on own account basis.

B. Fishing Establishments other than Fishing Operator's Household

a. Company

This refers to a company registered according to national laws related to company.

b. Fisheries cooperative

This refers to a unit cooperative or a federation of cooperatives, both of which are registered under the Fisheries Cooperatives Law.

c. Fisheries Production Cooperative

This refers to a fisheries production cooperative registered under the Fisheries Cooperatives Law.

d. Partnership

This refers to an economic unit which run a fishery by two persons or more who jointly own principal production means such as fishing boats and fishing nets.

e. Governmental Institution

This refers to a governmental institution such as national or local governmental office, fishery school, fishery experimental station etc., which engaged in fishery, and its catch was sold.

1.3 Classification of Fishing Establishments by Size of Management

Size of management is a fundamental classification taken in the Fishery Census to clarify the economic structure of fishery industry. The classification was established by a combination of type of fishery employed, and type and size of fishing boats used.

A. Size of Management Classified by Types of Fishery Employed

In case where the major type of fishery employed was one of the followings shown below, the size of management for the establishment is classified by its type of fishery employed regardless its fishing boats used. Because, it is considered that the size of management for these establishments are not measured by type or size of fishing boat used.

Size of Management (Major Types of Fishery Employed)

Large Set Net	Pearl Oyster Culture
Small Set Net	Pearl Culture
Beach Seine	"Wakame" Seaweed Culture
"Nori" Laver Culture	Scallop Culture
Oyster Culture	Other Culture

B. Size of Management Classified by Type and Size of Fishing Boats used

Size of management of the establishments other than those mentioned in A. above are classified by type and total gross tonnage of fishing boats used during one year prior to the survey date as follows.

Definition	Size of Management
Without fishing boat	Without fishing boat
With non-powered boat(s)	With non-powered boat
With powered boat(s)	
Aggregated gross tonnage of powered boats used is :	With powered boat of ·
Less than 1 ton	Less than 1 ton
1 - 3	1 - 3
3 - 5	3 - 5
5 - 10	5 - 10
10 - 20	10 - 20
20 - 30	20 - 30
30 - 50	30 - 50
50 - 100	50 - 100
100 - 200	100 - 200
200 - 500	200 - 500
500 - 1,000	500 - 1,000
1,000 tons and over	1,000 tons and over

(Notes) Those which used out-board powered boat is included into less than 1 ton class.

1.4 Classification of Marine Fishery

Marine fishing establishments are classified by the following criteria.

A. Coastal Fishery (Small Scale Fishery)

Such size of establishments classified as "Without fishing boat"

"Non-powered boat" "Powered boat less than 10 tons" "Set net" "Beach seine" and "Mariculture" are grouped and defined as coastal fishery.

B. Medium Scale Fishery

Such size of establishments classified as "More than 10 tons" to "500 to 1,000 tons of powered boat" are grouped and defined as medium scale fishery.

C. Large Scale Fishery

Such size of establishment classified as "More than 1,000 tons of powered boat" is defined as large scale fishery.

1.5 Fishing Boats

Fishing boat refers to a boat which was directly used by a fishing establishment for its fishery production during one year prior to the survey date. Therefore, e.g. in the case of two boats purse siene, not only two boats with net houler but also a boat with fish luring light and a carrier boat are included, as all of these boats are directly involved in fishing.

However, a boat which is used only as a leisure fishing or a fish carrier is excluded.

1.6 Classification of Fishery by Types of Fishery Regulation

A. Fishery under Minister's Licences

This fishery refers to fisheries which non-holders of these licences granted by the Minister are unable to engage in these fisheries.

B. Fishery under Prefectural Governers' Licences

This fishery refers to fisheries which non-holders of the licences granted by Prefectural Governers are unable to engage in these fisheries.

C. Fishery under Minister's Certificate

This fishery refers to fisheries which non-holders of the certificate granted by the Minister are unable to engage in these fisheries.

D. Fishing Right Fishery

This fishery refers to fisheries which are operated under fishing rights granted by Prefectural Governers.

E. Free Fishery

This fishery refers to fisheries which are allowed to engage in freely without any regulation.

F. Other Fisheries

Fisheries other than those defined above e.g. fisheries undertaken by research boats belonging to governmental offices, fishery school and fisheries experimental stations and those with permits granted by Fisheries Coordination Comittees, etc. are included in this category.

1.7 Fishing Area Classification

Fishing areas are classified as follows in terms of distance from Japan's coastal line.

Fishing Areas	Definitions
a. Within 12 miles	Sea area located within 12 miles from Japan's coastal line. (In case where the line of 12 miles is beyond the middle line of foreign countries concerned, this area is an area within the middle line.)
b. 12 - 200 miles	Sea area located between 12 and 200 miles off Japan's coastal line. (In case where the area overlaps with the foreign countries' 200 mile zone, this area is an area within the middle line of both countries.)
c. Beyond 200 miles	
(1) Within 200 miles off foreign countries	Sea area within the line of 200 miles from the coastal line of foreign countries, regardless of whether 200 miles fishing zone has been declared by foreign countries or not.
(2) Others	Water areas other than the above.

1.8 Number of Fishermen During Peak Season

This is the number of fishermen counted for each establishment, which engaged in fishing during a peak season when the maximum number of person were engaged on the sea. Thus, the aggregated number of such figures shows not the actual number of fishermen.

1.9 Catch in Value

This refers to the amount of catch sold by fishing establishment during one year prior to the survey date. As practiced in seaweed products, when catch is sold after processing, the catch in value is

assessed in terms of value of processed product. However, a part of catch consumed at home by own fishing household was excluded.

1.10 Extent of Dependency of Fishery

This inquiry is raised only for fishing operator's households.

A. Exclusively Engaged

"Exclusively engaged" refers to a fishing operators household which family members are not engaged in other works than own fishery.

B. Engaged in Other Works

"Engaged in other works" refers to a fishing operators household which one or more of its family members are engaged in other works than own fishery.

a. Mainly Engaged

"Mainly engaged" refers to fishing operator's household, the major income of which is derived from own fishery.

b. Partly Engaged

"Partly engaged" refers to a fishing operator's household, the major income of which is derived from other works than own fishery.

1.11 Fishing Employee's Household

Fishing employee's household refers to a household, in which one or more of its family members are engaged in fishing as fishing labourer for more than 30 days during one year prior to the survey date.

1.12 Actual Number of Fisherman

Actual number of fishermen is counted by referring to the family member of both fishing operator's household and fishing employee's

household whose age is 15 or more and engaged in either own fishing or other's fishing at sea for more than 30 days during the past one year prior to the survey date.

2. Inland Fishery Survey

2.1 Lake Fishing Establishment

Lake fishing establishment refers to an establishment (including household) which engaged in fishing in the lakes designated by the Minister of Agriculture, Forestry and Fisheries for the purpose of sale to gain a profit and income during the past one year prior to the date of the survey. The majority of such establishments are fishing operator's households.

2.2 Inland Water Culture Establishment

Inland water culture establishment refers to an establishment which engaged in aquaculture in inland water for the purpose of sale to gain a profit and income during one year prior to the survey date. In this survey, aquaculture means both nursing fish seeds and rearing fish to commercial size by feeding or fertilizing intentionally and continuously.

2.3 Inland Water Fisheries Cooperative

Inland water fisheries cooperative refers to a cooperative in which the majority of its member is engaged in fishing and fish culture in inland water. The federation of such cooperatives is included.

2.4 Classification of Freshwater Aquaculture by Type of Culture

A. Pond Culture

Pond culture refers to an aquaculture which is undertaken in an artificial pond which was built for the culture purpose. In case

where a reservoir is used only for fish culture being away from its original purpose, it is also regarded as a pond culture.

a. With Still Water

This culture refers to a pond culture which is used with still water.

b. With Running Water

This culture refers to a pond culture which is used with running water.

B. Reservoir Culture

Reservoir culture refers to a fish culture which is undertaken in a reservoir that was originarily built for irrigation or any other purpose than fish culture.

C. Net Cage Culture

Net cage culture refers to a fish culture which is undertaken in a net cage placed in lakes, marshes, ponds and rivers. The cage is well shaped with bamboo, vinyl, steel pipes, etc. With the floats of bamboo, drum cans and wooden barrels, the cage is anchored with poles, sand bags, etc.

3. Fishery District Survey

3.1 Fishery District

Fishery district is a unit area established for statistical purpose by the Minister of Agriculture, Forestry and Fisheries in order that natural and socio-economic conditions to undertake a fishery may be common for all fishermen within that area. In many instances, the area of a fishery district corresponds to that of a unit fishery cooperative. However, in case where an area of fishery cooperative is spread to two or more different municipalities, the area was set according to the area of each municipality.

The total number of fishery districts established through Japan is 2,469. In Japan, the release of statistical data as well as data collection for fisheries is done for each of such fishery districts.

3.2 Fishing Port

Fishing port refers to a fishing port designated by the Fishing Port Low, and a commercial port that was used by fishing boats during the past one year was included. However, a fishing port that was not used by fishing boat during the past one year was excluded even if it has been designated by the Fishing Port Low.

Types of fishing port are classified as follows.

A. Type 1

A fishing port mainly utilized by local fishermen.

B. Type 2

A fishing port, the utilization of which is wider than that of the Type 1 but not so wide as that of Type 3.

C. Type 3

A fishing port which is utilized by fishing boats from all over the country.

D. Type 4

Fishing port constructed on remote island or remote area for the development of fisheries and for the shelter of fishing boats.

E. Commercial Port

Out of commercial ports, the one used by fishing boats.

3.3 Fish Market

Fish market refers to a market which handles catch landed by fishing boats. However, a market which handles catches transported by land

to that market is included only when these catches were never transacted before.

3.4 Fish Wholesaler

Fish wholesaler refers to a person or a legal body to whom catch or fishery product is consigned for sale or who directly buys fish or fishery product from consigners at fish market.

3.5 Fish Dealer

Fish dealer refers to a person or a legal person registered to a wholesaler to purchase fish or fishery product from the wholesaler.

3.6 Ice-Making Plant, Cold Storage and Freezing Plant

Ice-making plant, cold storage and freezing plant refers to a plant that is equipped with facilities for ice-making, cold storage and freezing with main engine of over 5 horse-power and that operated its business of freezing and storeing fishery products with low temperature during the past one year. However, a plant that never handled any fishery products and that stores only frozen "Nori" laver nets is excluded.

3.7 Fish Processing Plant

Fish processing plant refers to a plant that was engaged in fish processing with a working place or factory and with worker(s) engaging for the processing during the past one year prior to the survey date.

However, a plant that is engaged in processing dried seaweed only is excluded.

III Major Findings

III. Major Findings

I. Marine Fishery and Mariculture

1.1 Number and Economic Characteristics of Marine Fishing Establisments

A. Number of Fishing Establishments by Types of Management

The Census revealed that the total number of fishing establishment in 1978 was 217,734, which was 6% decrease compared with that of 1973. This was lower rate than 10% that accounted for the period between 1968 and 1973. Japan's economic situation has turned from a rapid growing to a stable growing. Accordingly the decreasing tendency in the number of fishing establishment has slowed down during the past five years.

As seen in Fig.1 the number of fishing operator's households still occupies 97% of the total, and the number of remaining establishments shares only 3%. There is, however, a general tendency that the number of fishing operator's households decreases, whereas the number of other types of establishments increases. Among others as seen in Fig. 2, the number of fishing companies increased by 23% for the past five years. On the contrary, in spite of the fact that the number of partnership type establishments increased by 45% for the previous five years from 1968 to 1973, it decreased by 4% for the past five years. This is due particularly to the decrease in the number of partnership engaged in "Nori" laver culture and "Wakame" seaweed culture.

Fig. 1
Composition of Number of Fishing Establishment by Types of Management

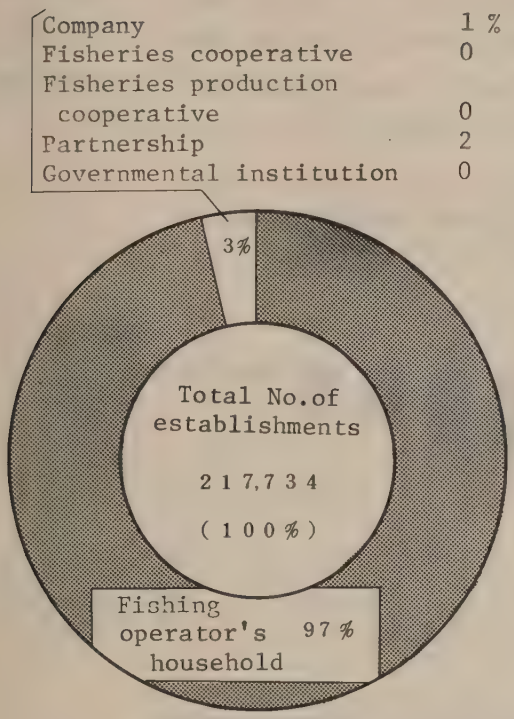
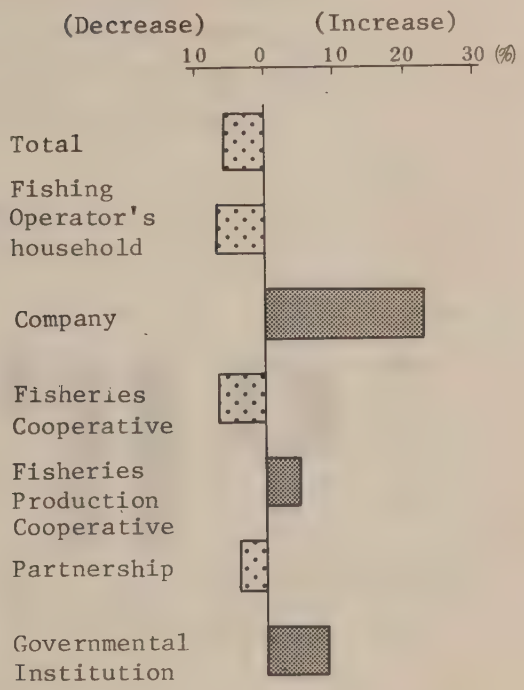


Fig. 2
Increased and Decreased Ratio of Number of Fishing Establishments by Types of Management (against 1973)



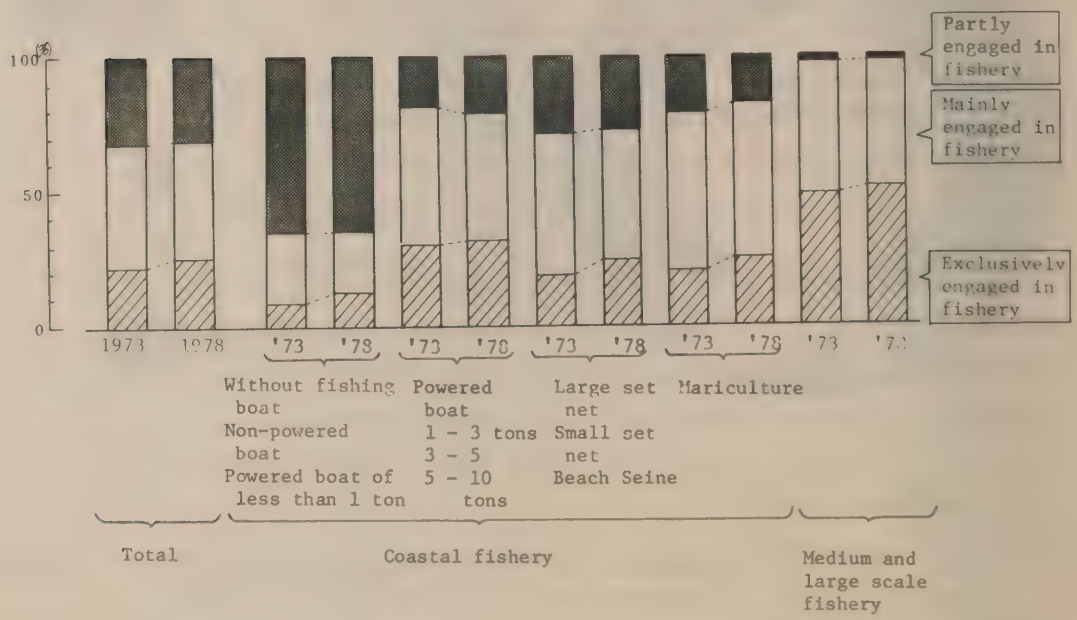
B. Extent of Dependency on Fishery for Fishing Operator's Household

The number of fishing operator's households in 1978 was 210,123 or 96% of the total, which ranges from those engaged in coastal fishery to those using a fishing boat of more than 1,000 gross ton although the former is the majority.

Of the total number of fishing operator's households those exclusively engaged in fishery, those mainly engaged and those partly engaged were 25%, 43% and 32% respectively. Of these, those exclusively engaged in fishery considerably increased, as seen in Fig. 3, as compared with those of 1973. However, those exclusively engaged for "Without boats", "With non-powered

boats" and "With powered boat of less than 1 gross ton" was only about 10% of the total. Even when those mainly engaged are added to those exclusively engaged, the ratio for these two categories becomes only 35%. In contrast to the above, those exclusively engaged for medium and large scale fisheries consists of 50% of the total. When those mainly engaged are added to those exclusively engaged, the ratio reaches 98% of the total.

Fig. 3 % Composition of Fishing Operator's Household by Extents of Dependency on Fishery



The types of side-jobs employed by the mainly engaged in fishery were employment other than fishery (40%), agriculture (31%), and employment of fishery (13%). As for those partly engaged in fishery, their main side-job is employment other than fishery, accounted for 44% of the total, which was followed by agriculture (22%), and employment of fishery (7%). The types of side-jobs other than above are fish processing, guide for leisure fishing and management of seasonal inn, etc.

1.2 Structure of Marine Fishery

A. Basic Structure of Marine Fishery

The number of fishing establishments engaged in coastal fishery was 206,797 or 95% of the total, which was the largest out of the total number of establishments. This was followed by the medium scale fishery being 10,730 or 5% of the total and the large scale fishery being 208 or 0.1%. Compared with those of 1973, the number of establishments engaged in costal and large scale fishery decreased by 7% and 3% respectively, while the number of establishments engaged in medium scale fishery increased by 11%. In case of the coastal fishery the establishments having low productivity such as "Without fishing boat" and "With non-powered boat" and those engaged in small scale mariculture such as "Nori laver culture" and "Wakame seaweed culture" greatly

Fig. 4 Basic Structure of Marine Fishery

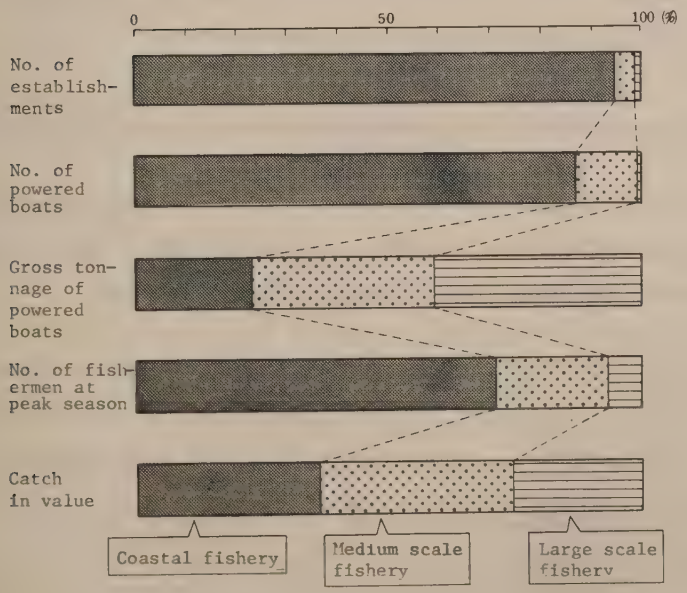
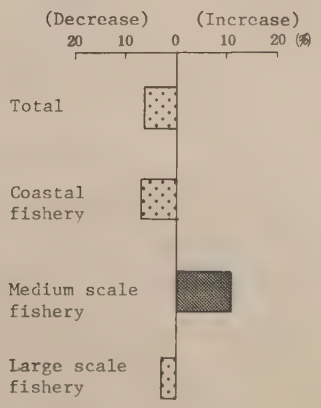


Fig. 5 Increase and Decrease in the Number of Fishing Establishments (against 1973)



decreased in number. A decrease in the number of establishments engaged in large scale fishery is due to the reduced number of fishing boats caused by the declaration of 200 miles fishing zone by countries concerned. On the other hand, an increase in the number of establishment engaged in medium scale fishery is mainly due to the increase in the number of establishments with powered boats of 10 to 20 gross tons, which engaged in fishery such as small trawls, lift nets, gill nets, squid angling, etc.

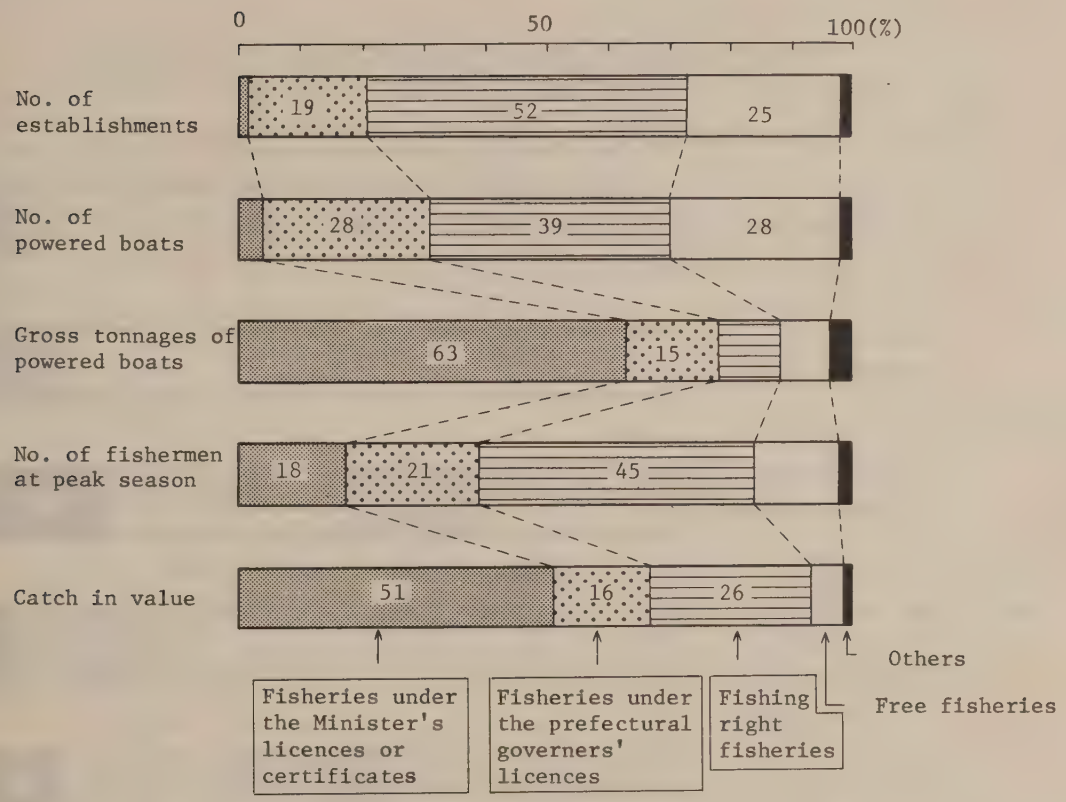
With respect to the basic economic structure of marine fishery the coastal fishery plays rather minor role in terms of the total catch in value and the total gross tonnage of powered boat in spite of the fact that the number of establishments, powered boats and fishermen is significantly high. On the contrary to the above, the medium and large scale fishery play quite important role in terms of the total catch in value and the total gross tonnage of powered boats despite the fact that the number of establishments and powered boats, are a few. According to the result of the fishery production survey in 1978, the coastal fishery produced 27% of the total catch in quantity.

B. Structure of Marine Fishery in Terms of Fishery Regulation System

According to fishery regulation system in Japan, almost all fisheries require fishing license, certificate or fishing right issued by either central government or prefectural governments.

In spite of the fact that fisheries under the Minister's licences and certificate are composed of a small number of establishments, powered boats and fishermen, these fisheries play significant role, producing 51% of the total catch in value. This is because these fisheries are generally operated by large size fishing boats. The fisheries under the Prefectural Governer's licences are composed of 19% in terms of the number of establishments, 28% in terms of the number of powered boats and 16% in terms of the catch in value. Out of whole fisheries, fisheries operated under

Fig. 6 Structure of Marine Fishery in Terms of Fishery Regulation System

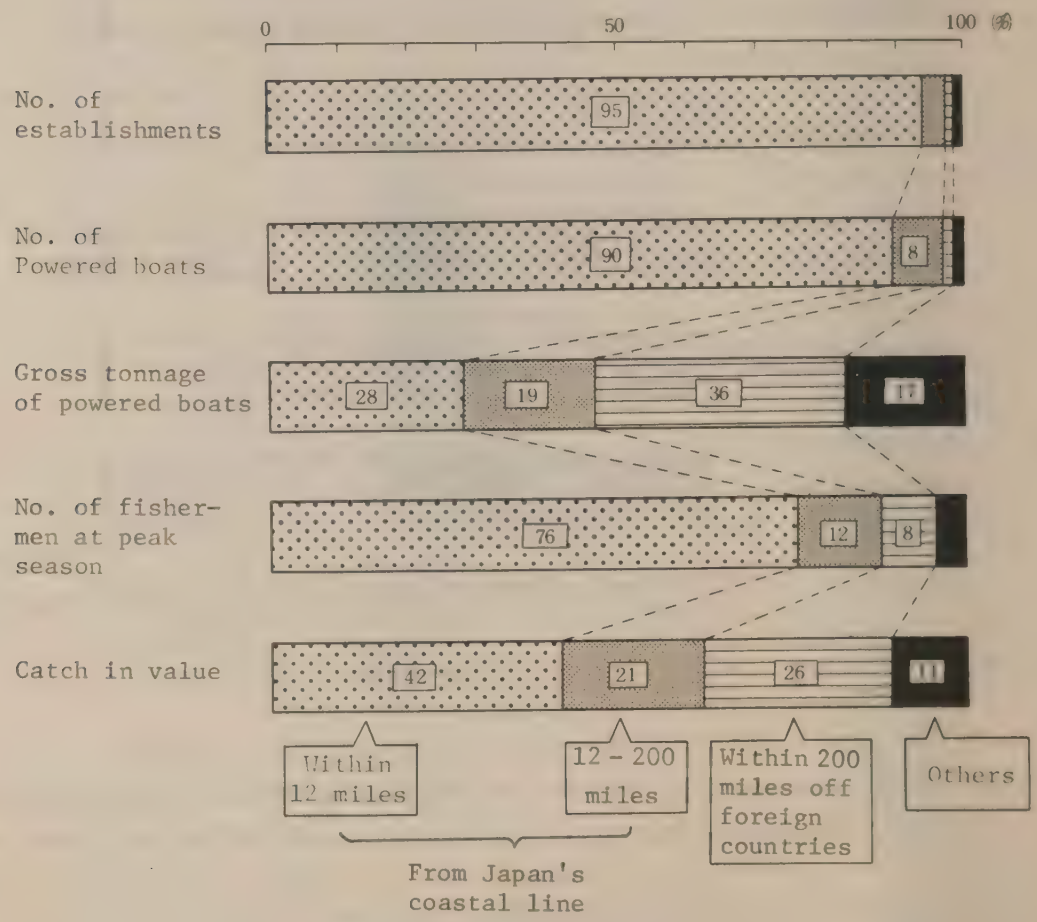


fishing right consist of 52% in the number of establishments, 39% in the number of powered boats and 45% in the number of fishermen. In spite of these, the total gross tonnage of powered boats used by these fisheries is only 15% of the total. This is due to the fact that the fisheries are mostly operated in coastal waters by small scale fisheries. Fisheries free from any fishery regulation are relatively high in the number of establishments and powered boats, but low particularly in the total catch in value.

C. Structure of Marine Fishery in Terms of Fishing Area

Since 1977 a number of countries started to declare the 200-mile fishing zone and the total number of countries declared such

Fig. 7 Structure of Marine Fishery in Terms of Fishing Area



fishing zones has reached 79 as of January 1979. Under such a sea condition, the fisheries operated in the waters within 200 miles from Japan's coastal line consist of 99% in the number of establishments, 98% in the number of powered boats, 88% in the number of fishermen and 63% in catch in value. These facts well reveal that Japan has a good fishing ground around Japan and

depends much on it.

On the other hand, the total tonnage of powered boat operated within 200 miles off foreign countries is composed of 36% of the total, and producing 26% of the total catch in value although the number of establishments operated in such a foreign water is only 0.4% of the total. Thus, it can be said that Japanese fishery still depends much on foreign waters. Species being caught in those waters are Alaska pollack, which is utilized as raw material for fish paste known as "Kamaboko", salmons, skipjack, tunas, shirimps, octopus, etc, which are indispensable for Japanese people's diet.

1.3 Fishing Boats

A. Recent Tendency of Number of Fishing Boats

The total number of fishing boats held as of 1st November, 1978 was 320,972, of which the number of non-powered boats, out-board

Fig. 8 Number of Fishing Boats by Types of Boats

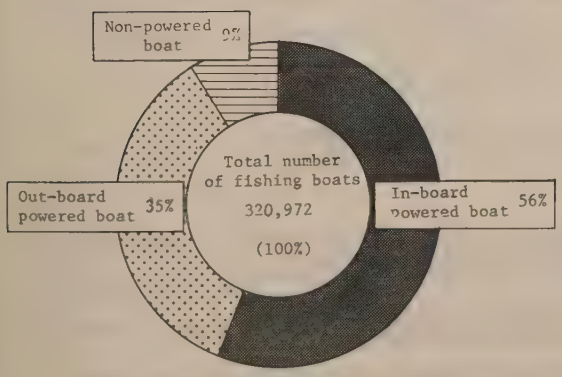


Table. 1 Number of In-board Powered Boats by Tonnage Classes

Class of Tonnage	Number	Ratio
Total	178,638	100 %
Less than 3 tons	96,335	54
3 - 5	58,813	30
5 - 10	12,600	7
10 - 20	8,517	5
20 - 50	1,431	1
50 - 100	3,214	2
100 - 500	2,571	1
500 - 1,000	47	0
1,00 tons and over	110	0

powered boat and in-board powered boat were 9%, 35% and 56% of the total respectively. Compared with that of 1973, the total number of boats decreased by 3%. However, while that of out-board powered boats increased by 13%, also the number of in-board powered boats slightly increased by 0.6%.

Owing to a large increase in the number of out-board powered boats as well as a tremendous decrease in that of non-powered boats, the mortarization of fishing boat has made a great progress. Thus, the rate of mortarized boats against the total changed from 84% in 1973 to 91% in 1978.

Out of the total number of in-board powered boats which accounts for 178,638, that of "less than 3 gross tons" occupies 54%. If this is combined with those of "3 - 5 tons" and "5 - 10 tons", these classes, which mainly operate in coastal waters, account for 91% of the total. In comparison with those of 1973, the number of in-board powered boats "less than 3 tons" has been decreased, while that of "3 - 5 tons" and "5 - 10 tons" increased. These reveal that a good progress was made in the enlargement of small size in-board powered boats.

On the contrary, the number of large fishing boats more than 500 gross tons decreased from 221 in 1973 to 157 in 1978 due to the 200 mile fishing zones and international fisheries agreements.

B. Number of Powered Boats by Fishing Areas Operated

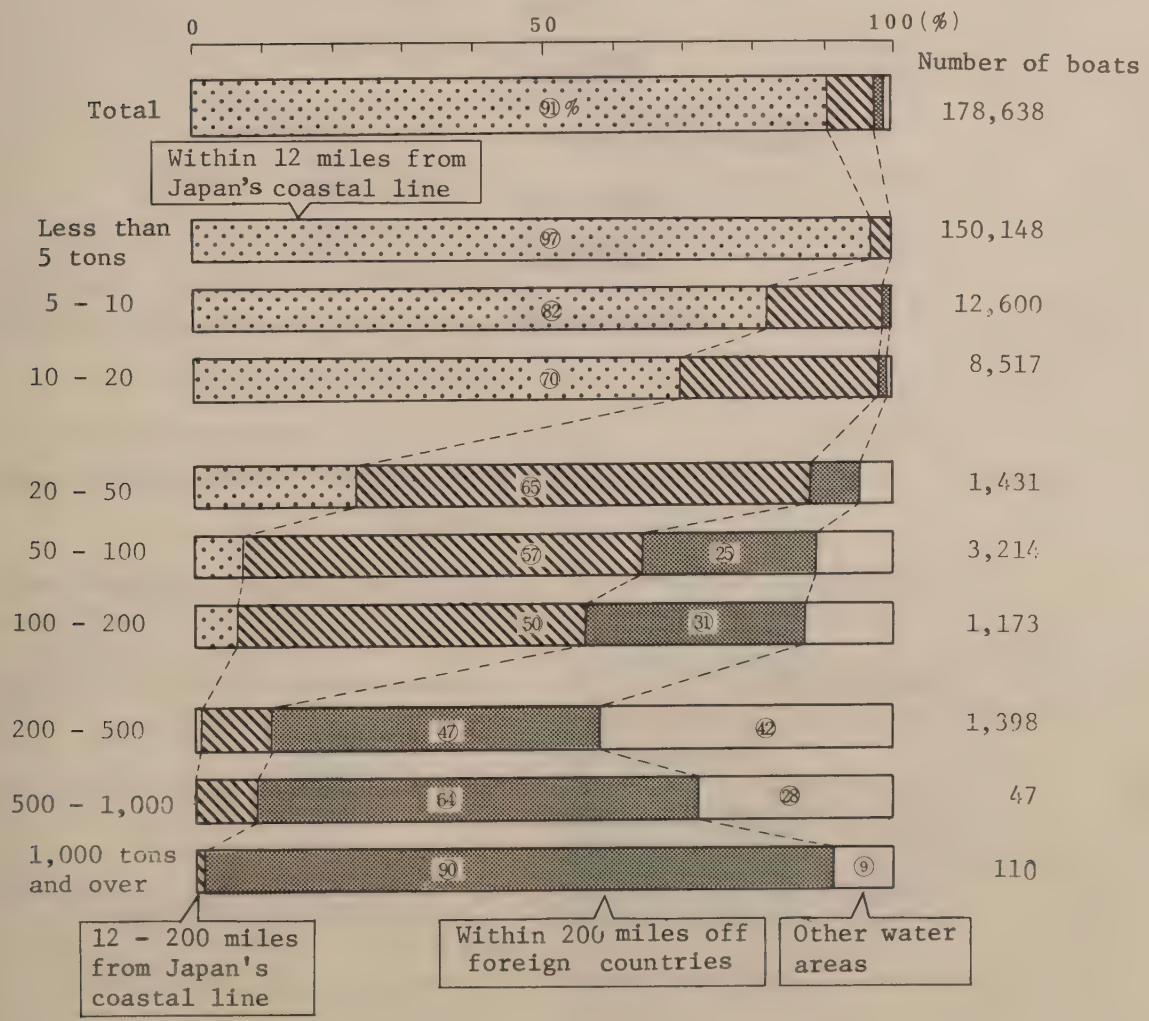
Out of the total number of powered boats, which was 178,638, those operated mainly in waters within 12 miles from Japan's coastal line, those mainly operated in waters within 12 - 200 miles from Japan's coastal line, those mainly operated in waters within 200 miles off foreign countries and those mainly operated in the rest of water were 91%, 7%, 1.2% and 0.7% respectively.

Although the majority of powered boats operate in waters within 12 miles from Japan's coastal line, the following special features are noted.

(i) A very few number of powered boats of less than 20 gross tons operated in water areas beyond 200 miles from Japan's coastal line, and 94% of these boats operated in water areas within 12 miles from Japan's coastal line.

(ii) As for the class of 20 - 200 tons, of the total number of boats which accounted for 5,818,56% operated in water areas within 12 - 200 miles from Japan's coastal line, and 22% operated in water areas within 200 miles off foreign countries.

Fig. 9 Number of Powered Boats by Fishing Areas Operated



(iii) In the class of 200 tons and above, 51% of the total operated in water areas within 200 miles off foreign countries, and 39% in other water areas. This class depends much on water areas beyond 200 miles from Japan's coastal line.

C. Equipment Installed to Facilitate Navigation and Fishing (For powered boats of 5 gross ton and over)

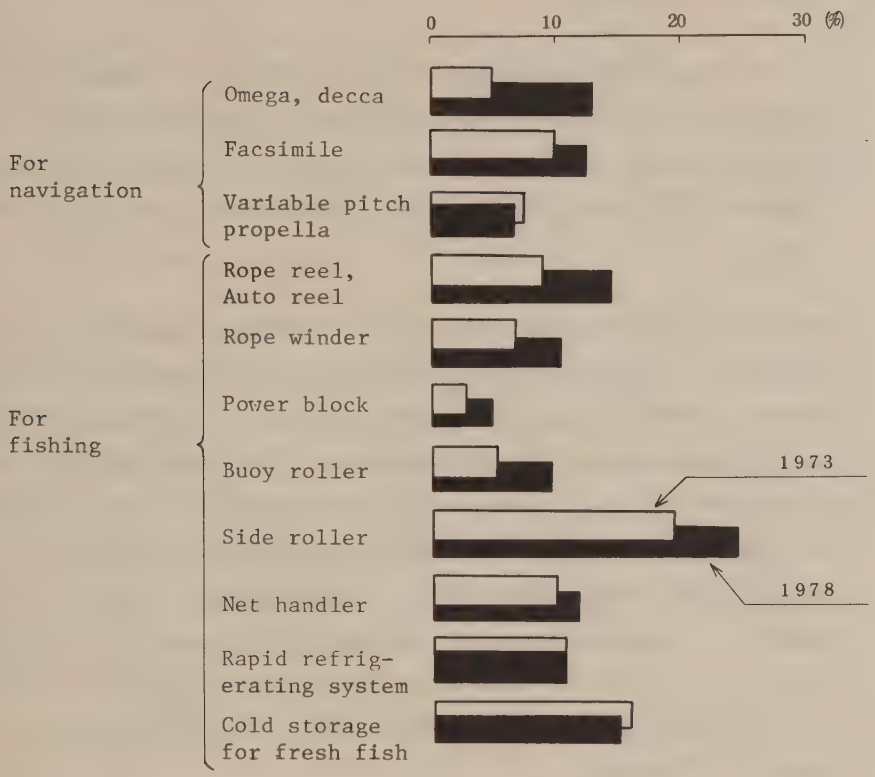
As shown in the Fig. 10, the installment of modern equipment to facilitate navigation and fishing was very much progressed as compared with that of 1973.

Function of each equipment is as follows.

Type of Equipment	Function
Omega & Decca	To measure boat's position
Variable pitch propella	With a constant engine revolving, capable for a ship to go ahead and back, stop and slow navigation with variable pitch propella.
Facsimile	Receiving & recording system of weather chart, news paper and telegram, etc.
Rope reel, auto reel	To roll up trawl net and tuna long line
Rope winder	To store towing rope of trawler and main rope of tuna long line
Power block	For lifting purse seine net and trawl net
Buoy roller	For lifting purse seine net and gill net

Fig. 10 Equipment for Navigation and Fishing

(Powered boats of more than 5 tons)



(Note) Percentage ratio of the number of boats installed against the total number of boats.

Type of Equipment(Cont'd)	Function (Cont'd)
Side roller	Setting on boat's side, roller made of rubber for lifting heavy fishing net from the sea
Net handler	To handle purse seine net, gill net, etc.
Rapid refrigerating system	Fish rapid-freezing system on board
Fresh fish cold storage system	Fresh fish cold storage system on board

1.4 Fishermen

A. Number of Fishermen

The Census revealed that the total number of fishermen in 1978 was 478,148 persons, which was 6% decrease as compared with that of 1973. However, such a decrease rate was a half of the previous figure (15%) from 1968 to 1973, when Japan's economy grew very rapidly.

Out of the total, the number of fishermen engaged in coastal fishery was of 76%, and thus the remaining 24% was for off-shore and distant water fisheries. The number of fishermen for mariculture was largest being 21% of the total. This was followed by angling (13%), shellfish and seaweed collecting (11%) and trawls (10%). The number of male fishermen was 83% of the total and the remaining 17% was female fishermen. Compared with those of 1973, the number of male and female fishermen decreased by 5% and 11% respectively. Female fishermen are largely engaged in shellfish and seaweed collecting, mariculture, beach seine, etc. which are coastal fishery.

Fig. 11 Number of Fishermen by Type of Fishery

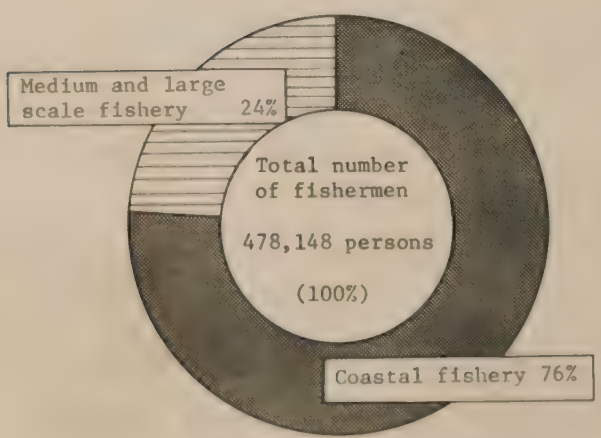
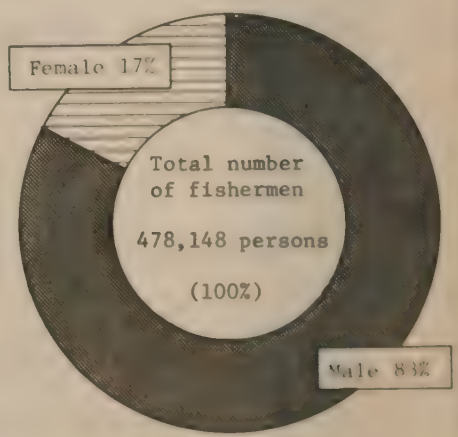


Fig. 12 Number of Fishermen by Sex

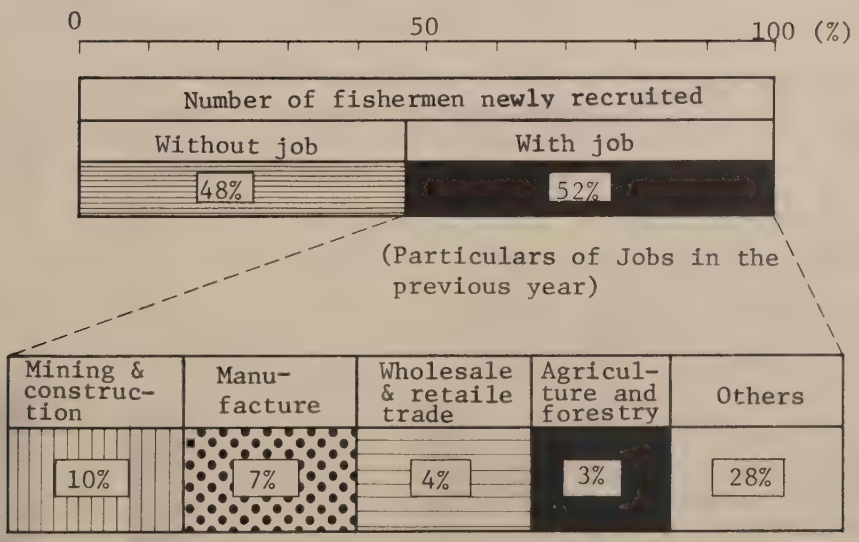


B. Number of Fishermen Newly Recruited

The number of fishermen newly recruited in 1978 was 4,048 persons, which was 15% higher than that of 1973. 52% out of the total number of fishermen newly recruited has some jobs other than fishery in the previous year, but the remaining 48% had no job. In the former, the type of jobs engaged were mining, construction, which was 10% of the total. This was followed by manufacture, trade and agriculture and forestry.

As compared with that of 1973 the number of fishermen changed their jobs from "mining and construction", "wholesale and retail trade" and "manufactureing" increased by 46%, 44% and 42% respectively. Whereas the number of fishermen changed their jobs from agriculture and forestry decreased by 12%. Out of the total number of fishermen newly recruited those under 20 to 29 years old was largest being 38%. This is followed by 30 to 39, 40 to 49, and 50 to 59 years old in this order.

Fig. 13 Fishermen Newly Recruited in Terms of Job Status in Previous Year



1.5 Fishing Employee's Households

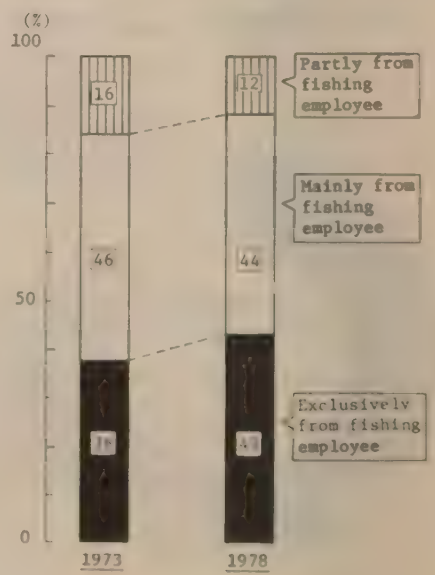
The Census revealed that the number of fishing employee's households in 1978 was 127,382. Fishing employee's households engaged in "angling and longline" fisheries were largest in number being 31% of the total. This was followed by "Trawls", "Purse seine" and etc. Those obtained income "exclusively" from fishing employment, "mainly" from the same and "partly" from the same were 43%, 44% and 12% of the total respectively.

Compared with those of 1973, those exclusively and mainly from fishing employment increased in number, while those partly from fishing employee decreased. Those employed by off-shore and distant water fisheries such as distant water trawl, trawl in East China Sea, factory ship type whaling, Northern Sea long line, gill nets, tuna long line, salmon drift gill net, etc. were mostly those gained their income from fishery. Contrary to the above, those employed by coastal fishery such as beach seine, shellfish and seaweed collecting and set nets etc., were not those exclusively from fishery.

Table. 2 Number of Fishing Employee's Households by Types of Fishing Gear employed

Types of Fishing Gear	Number	Ratio
Total	127,382	100.0%
Factory ship type	5,835	2.9
Trawls	23,765	8.9
Purse seine	18,283	10.4
Lift nets,gill nets	3,060	2.8
Angling,long line	39,923	21.5
Beach seine Boat seine Shellfish,seaweed collecting	8,498	21.4
Mariculture	6,503	9.0
Other fishery	3,342	2.0

Fig. 14 Income Sources of Fishing Employee's Households



2. Inland Fishery and Aquaculture

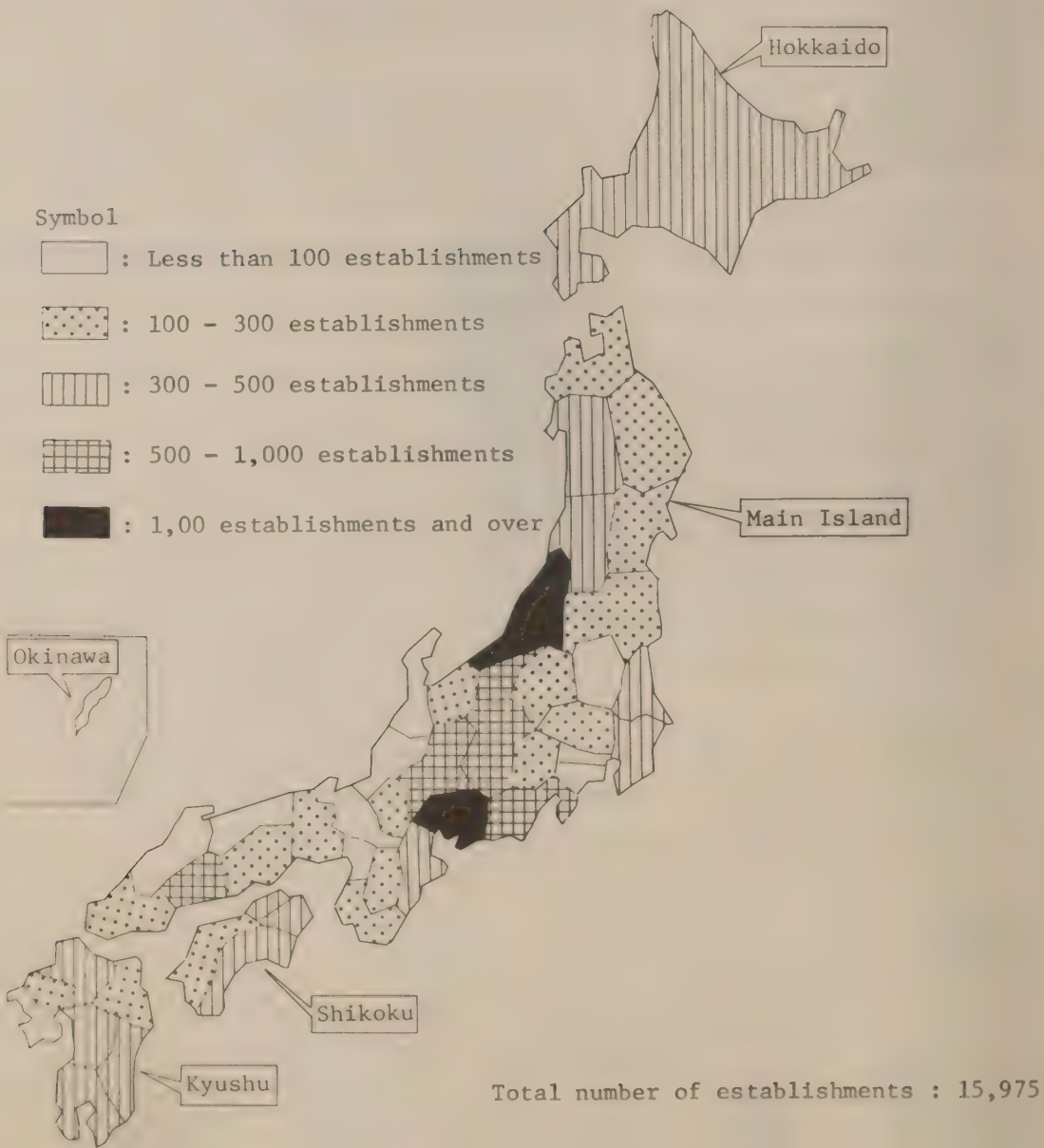
2.1 Inland Water Aquaculture

A. Number of Inland Water Culture Establishments

The Census revealed that the number of inland water culture establishments as of 1st November 1978 was 15,975. Compared with that of 1973, it decreased by 28% due to many farm households which started small scale aquaculture by converting their paddy farming before November 1973 but abandoned the aquaculture because of the low price of the products.

Inland water culture establishments are widely distributed throughout Japan. However, many of them are found in the central part of the main island (Niigata, Nagano, Gifu, Shizuoka and Aichi prefectures) and partly Hiroshima prefecture which is located in the west part of the main island. A few number of the establishments are operated in the northern and west part (except for Hiroshima prefecture) of the main island, Hokkaido and Kyushu. In the northern part of the main island and Hokkaido carp and rainbow trout, are mainly cultured, whereas in the central part of the main island eel, carp and rainbow trout. In the west part of the main island, Shikoku and Kyushu eel and carp are mainly cultured.

Fig. 15 Distribution of Inland Water Culture Establishment



2.2 Number of Culture Establishments by Species under Culture and by Types of Culture

The number of culture establishments for fancy carp was largest being 31% of the total. This was followed by common carp culture (21%), eel culture (20%), and rainbow trout culture (9%). In respect to the type of culture, pond culture with still water, pond culture with running water and reservoir culture were 46%, 35% and 16% of the total in their number respectively.

The number of common carp culture establishments was 4,178, which are widely distributed throughout Japan. The number of type of culture employed were pond culture with running water (41%), reservoir culture (28%), pond culture with still water (22%) and net cage culture (9%).

The number of eel culture establishments was 3,257, which are also widely distributed throughout Japan. However, the most of them are located in the regions such as Tokai, Shikoku and Kyushu, which accounted for 90% of the total. The types of culture for eel culture are pond culture with still water (83%) and pond culture with running water (16%).

The number of rainbow trout culture establishments was 1,700, which are mainly distributed in the regions of Central, Kanto, Tohoku and Hokkaido. The type of culture employed is pond culture with running water, which occupies 96% of the total.

The number of sweetfish culture establishments was 543, of which 94% was pond culture with running water. They are mostly distributed in the south-western part of the main island.

According to the result of the fishery production survey in 1978, the total production of food fish cultured was 89,900 metric tons, of which eel production was largest, being 36% of the total. This was followed by common carp (32%), rainbow trout (21%), sweetfish (8%), etc.

Fig. 16 Number of Inland Water Culture Establishment by Species and by Types of Culture

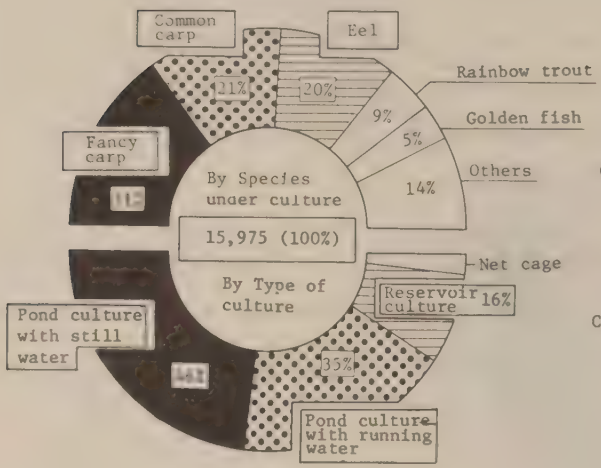
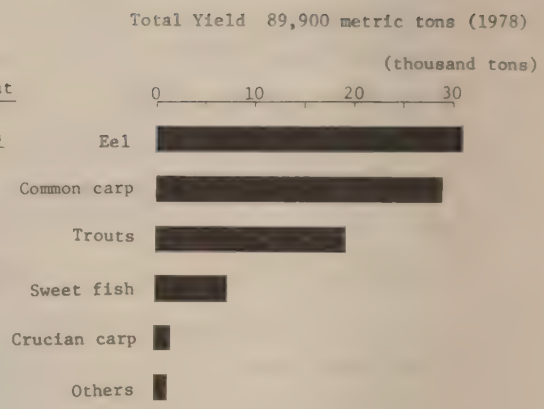


Fig. 17 Yield of Inland Water Culture by Species



Data source: 1978 Fishery Production Year Book

2.3 Inland Fishery

A. Lake Fishery

The total number of fishing establishments engaged in fisheries in 99 lakes was 6,842. Of which, the number of establishments in 10 large lakes including Biwako, Kasumigaura, was 4,873 or 71% of the total, which was 15% decrease compared with that of 1973.

Table. 3 Number of Fishing Establishment

(10 large lakes only)

Name of Lake	Prefecture	No. of establishments 1978	1973	1978/1973 %
Biwako	Shiga	1,557	1,766	88
Kasumigaura	Ibaragi	964	1,054	92
Shinjiko	Shimane	616	722	85
Kitaura	Ibaragi	414	617	67
Hachiroko	Akita	393	346	114
Ogaharako	Aomori	336	291	116
Sotonamisakaura	Ibaragi	198	260	76
Suwako	Nagano	165	196	84
Konuma	Ibaragi	137	195	70
Inbanuma	Chiba	93	278	34

B. River Fishery

The number of persons who are members of river fisheries co-operatives and who are assumed to be fishermen in river fishery, was 467,933 in 1978, which was 37% increase compared with that of 1973. 80% of these members of river fisheries cooperatives engages in angling. In terms of annual sale 81% of them was less than 50 thousand yen, which implies that the majority of them engages in fishery of leisure nature.

C. Inland Fisheries Cooperatives

The total number of inland fisheries cooperatives was 1,112 in 1978, which was an increase of 45 cooperatives or 4% as compared with that of 1973. In terms of the types of cooperatives the number of river cooperatives was 800, which was an increase of 15 cooperatives or 2%, that of lake cooperatives was 149, which was an increase of 16 or 12%, and that of culture cooperatives was 104, which was an increase of 2 or 4%.

The total number of members of the fisheries cooperatives was 666,717 persons, which was 11% increase compared with that of 1973.

Percent of fish seeds released by these cooperatives against the total by species are : sweetfish (16% of the total), anadromous salmons and trouts (11%), land locked salmons and trouts (7%), crucian carp (5%) and common carp (4%). Compared with those of 1973, the number of fish seeds released increased for every species. Among of them, especially increased species are anadromous salmons (4 times) and land locked salmons and trouts (7 times) as compared with those of 1973.

Table. 4 Number of Fish Seeds Released by Species of Inland Water Fishery

Unit : thousand fish

	Total	Salmon & trout		Sweet fish	Common carp	Crucian carp	Eel	Others
		Anadromous	Land locked					
Number of fish seeds released (1978)	1,743,557	190,900	129,678	271,434	72,315	78,553	15,915	984,761
1978/1973 (%)	207	403	663	118	169	342	162	210

D. Number of Persons Engaged in Leisure Fishing

The total number of persons engaged in leisure fishing in rivers and lakes in 1978 was 8.8 million persons which was an increase of 470 thousand persons or 6% as compared with that of 1973.

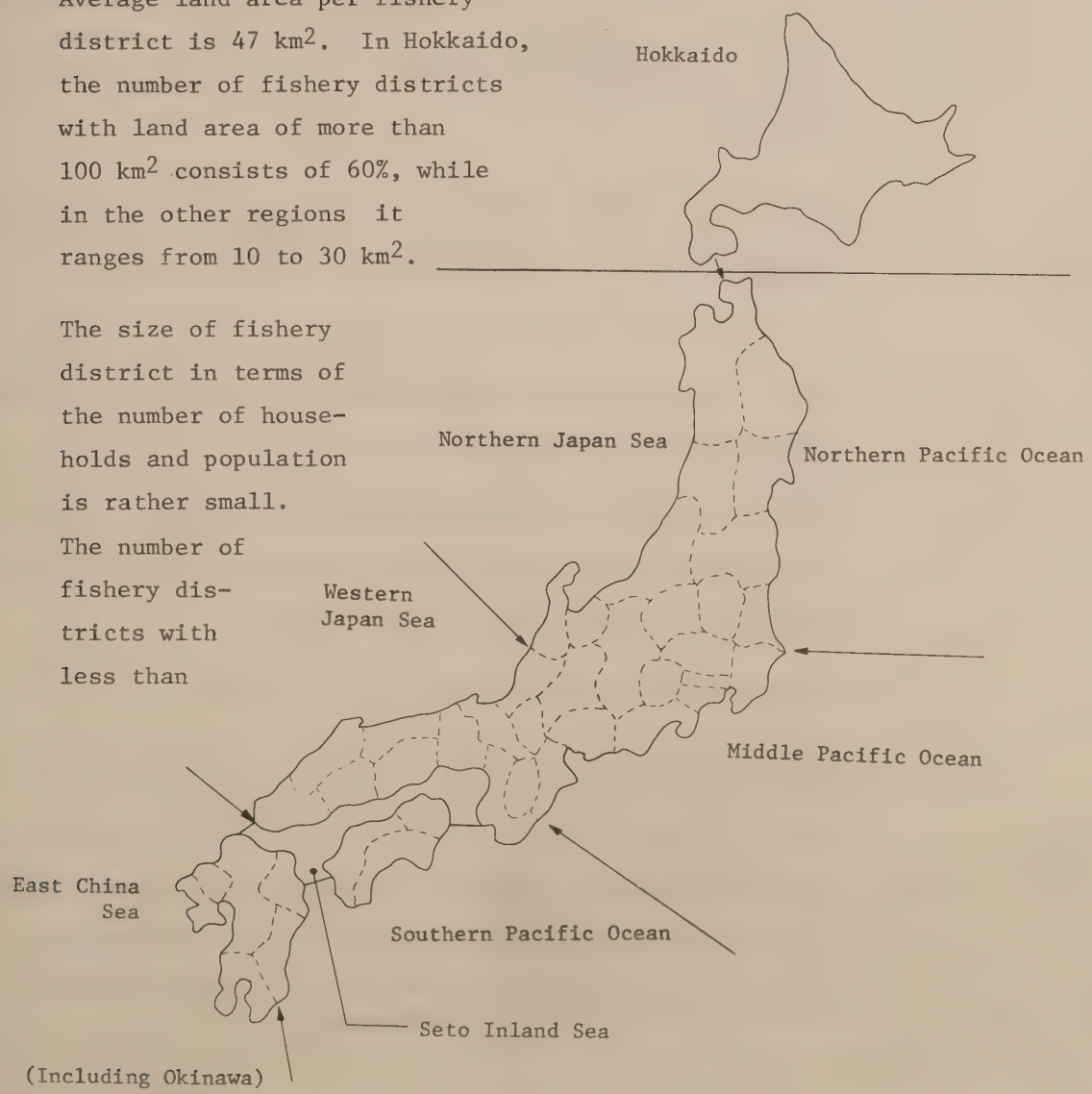
3. Background of Marine Fishery Production

3.1 General Condition of Fishery Districts

The total number of the fishery districts throughout Japan is 2,469, which covers all coastal cities, towns and villages. The total land area covered by these fishery districts is 117,153 km^2, which is one third of the total land area of Japan. Average land area per fishery district is 47 km^2. In Hokkaido, the number of fishery districts with land area of more than 100 km^2 consists of 60%, while in the other regions it ranges from 10 to 30 km^2.

The size of fishery district in terms of the number of households and population is rather small. The number of fishery districts with less than

Fig. 18 Map Showing Coastal Regions



1,000 households and with less than 10 thousand population was 70% of the total.

A. Utilization of Coastal Line

The total length of coastal line of Japan is approximately 32 thousand km, which is quite long as compared with her narrow land area and formulates very complicated shapes. 39% of the total coastal line is occupied by natural coast, being the largest portion of the total length. This is followed by that used commercial and fishing ports which is 31% of the total. Those used for reclaimed land area and for industrial land area are 2 and 1% of the total respectively.

B. Condition of Coastal Line

Shallow sea area is quite important for the formation of coastal fishing ground. Classified by types of beach, the total number of fishery districts consists of rocky beach (51%) and sandy beach (49%). The number of fishery districts with both tideland and seaweed growing area, those with tideland only, those with seaweed growing area only and those without either of these are 18%, 18%, 29% and 35% of the total respectively. In general, it is noted that fishery districts with rocky beach have seeweed growing area and those with sandy beach have tideland.

C. Availability of Transportation

Public bus transportation system has been most well developed throughout all fishery districts including those located in islands, fishery districts with this bus system being 70% of the total. For fishery districts located on Japan's main lands alone, such a bus system has been developed for 97% of the total. Nevertheless, there still remains 22 fishery districts where no public transportation has yet been developed.

3.2 Number of Households and Size of Population in Fishery Districts

Table. 5 Number of Households and Population in Coastal Municipalities by Coastal Regions

Coastal Region	No. of Households (A)			No. of Fishing Households (B)			Ratio of Fishing Household (B/A)	Population (C)			No. of Family Members of Fishing Households (D)			Ratio of Family Members of Fishing Households (D/C)
		%	Ratio against 1973		%	Ratio against 1973			%	Ratio against 1973		%	Ratio against 1973	
	1,000 households	%	%	1,000 households	%	%	%	1,000 persons	%	%	1,000 persons	%	%	%
Total	14,273	100	104	338	100	96	2	49,639	100	104	1,484	100	91	3
Hokkaido	638	4	108	37	11	98	6	2,034	4	100	160	11	91	8
Northern Pacific Ocean	993	7	112	52	16	94	5	3,524	7	106	249	17	89	7
Middle Pacific Ocean	3,715	26	94	50	15	87	1	14,528	29	105	224	15	82	2
Southern Pacific Ocean	621	4	109	31	9	100	5	1,973	4	107	127	8	95	7
Northern Japan Sea	977	7	109	21	6	102	2	3,492	7	103	99	7	98	3
West Japan Sea	590	4	107	24	7	103	4	2,029	4	103	106	7	99	5
East China Sea	2,540	18	109	77	23	98	3	8,464	17	103	341	23	92	4
Seto Inland Sea	4,199	30	107	43	13	97	1	13,596	28	105	178	12	91	1

(Note) 1. Because of rounding, the total is not always equal to the sum of each components.
2. The number of family members of fishing households is based on the result of the Marine Fishery Survey of the Sixth Fishery Census.

The total number of households existing throughout all coastal cities, towns and villages was 14,273 thousand, which was 41% of the total of Japan. During the five years from 1973 to 1978, the total number of such households increased by 4%, although there is a little difference such an increasing rate among coastal regions. The number of fishing households was 338 thousand, which was 2.4% of the total number of households in the coastal cities, towns and villages. Such a ratio is high for such coastal regions as Hokkaido (6%) Northern Pacific Ocean (5%), and Western Japan Sea (4%) whereas such a ratio for the coastal region of Middle Pacific Ocean and Seto Inland Sea are lower than the national average.

The total population in the coastal cities, towns and villages was 49,639 thousand, which is 43% of the total of Japan. It also increased by 4% during the past five years. The number of family members of the fishing households was 1,484 thousand, which correspond to 3% of the total population in the coastal cities, towns and villages.

This means that in the coastal municipalities one person for every 33 persons is the member of the fishing household.

The population size particularly increased in the coastal regions of Middle Pacific Ocean and "Seto" Inland Sea which are close to large cities.

3.3 Land Area Reclaimed and Area under Fishing Rights Abandoned

The number of fishery districts where land reclamation took place during the past five years was 1,010, which was 47% of the total. The total area reclaimed accounted for 131 km^2. This was an increase of 249 fishery districts or 7% as compared with those of the previous five-year period from 1968 to 1972. However, the land reclamation started to decrease after 1972 and 1973 when the reclamation had reached the peak in the past.

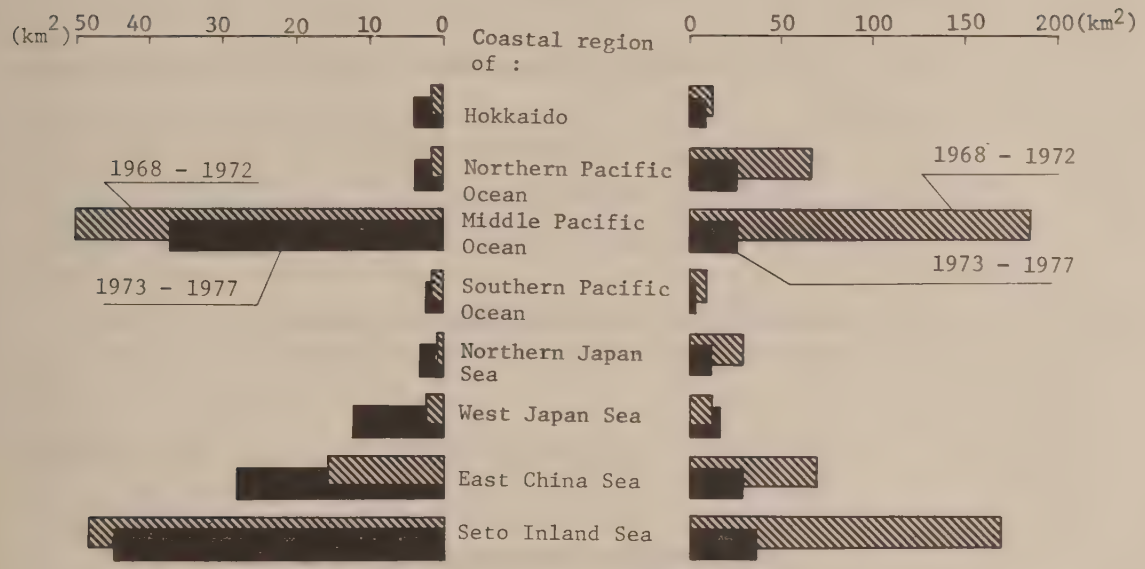
The area reclaimed in the coastal region of "Seto" Inland Sea and Middle Pacific Ocean is quite high, being 34% and 29% of the total respectively. When this is added to that of East China Sea (22%), the sum becomes 85% of the total area reclaimed.

The main purpose of the land reclamation is the construction of commercial and fishing port, which consists of 62% of the total area. The other purposes are the construction of industrial sites (11%), the construction of roads (9%), the construction of housing area (6%) and the construction of farming area (1%).

The number of the fishery districts where the fishing rights were abandoned during the past five years was 612, which correspond to 29% of the total. The number of such fishery districts increased by 77 as compared with that of the previous past five years. The total area under fishing rights abondoned was 152 km^2, which was one third of that of the previous five-year period (543 km^2).

The area under fishing rights abandoned in "Seto" Inland Sea is still

Fig. 19 Area Reclaimed and Area under Fishing Right Abandoned



high, being 25% of the total area, although the area greatly decreased compared with that of the previous five-year period. This is followed by Northern Pacific Ocean (18%), Middle Pacific Ocean (18%) and East China Sea (18%). Thus, the area under fishing rights abandoned in those four regions accounted for 79% of the total.

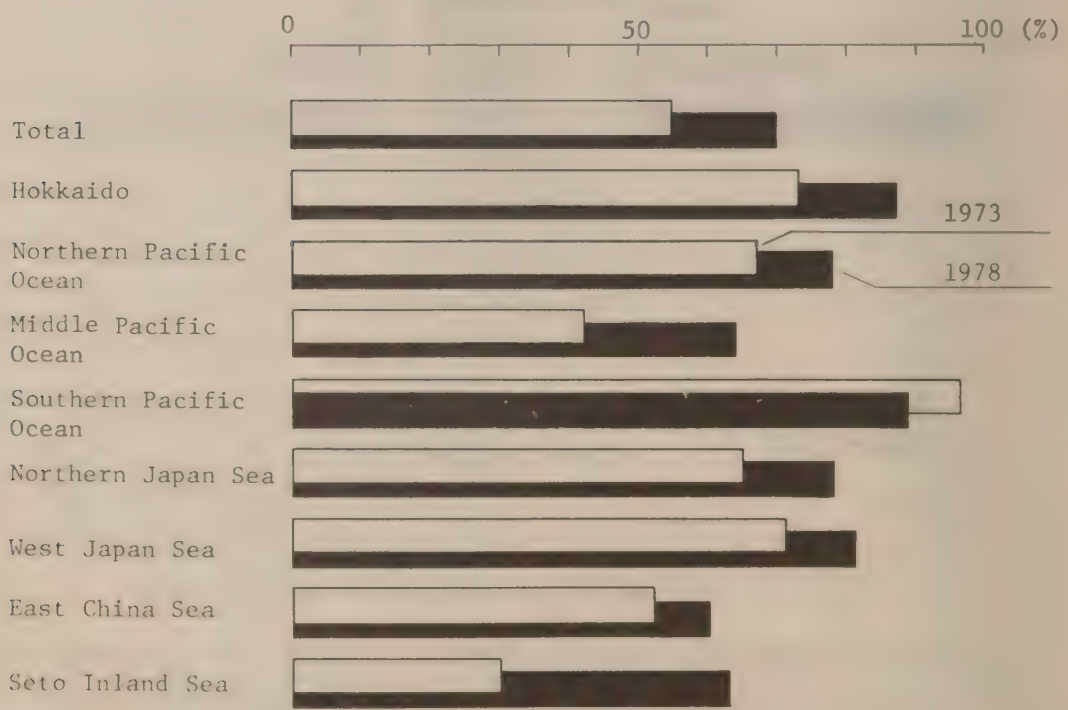
The main cause for the abandonment of fishing rights was the land reclamation, which was 44% of the total number of fishery districts which abandoned fishing right. The other reasons are the construction of commercial and fishing port (41%), the expansion of navigation route (2%), water pollution (1%) and the draining of hot water from factories (1%).

3.4 Environment around Coastal Fishing Grounds

A. Improvement of Fishing Grounds

Owing to the development of many industrial sites along her coast the fishery of Japan has recently been suffering from the worsening environment around coastal fishing grounds. On the other hand, the world has entered the "era of 200 miles", which makes it difficult to expand her distant water fishery. Under such a cercumstances

Fig. 20 Number of Fishery Districts designated as the Area for the Second Coastal Fishery Structure Improvement Project



the reassesment of the value of her coastal grounds and their maximum utilization are now under consideration. To meet the above requirements, the improvement of coastal fishing grounds is now underway under the Second Coastal Fishery Structure Improvement Project by the Government.

The number of fishery districts designated as the area for the Second Coastal Fishery Structure Improvement Project accounts for 68% of the total as of the 1st November 1978, which is an increase of 14% as compared with that of 1973.

More than 70% out of the total number of fishery districts are now designated as the area for the Second Coastal Fishery Improvement Project in the coastal regions of Northern Pacific Ocean, Southern Pacific Ocean, Northern Japan Sea and Western Japan Sea. In the coastal regions of Middle Pacific Ocean and Seto Inland Sea, 59% and 63% of the total number fishery districts are now designated as the area for the Project respectively. These %s are up 21% and 29% respectively as compared with those as of Nov. 1st, 1973, when both of them were less than 50%.

Above all, throughout all coastal areas the improvement of fishing grounds is underway for more than a half of the total number of fishery districts.

B. Fishery Districts Affected by Water Pollution by Oil and Red Tide

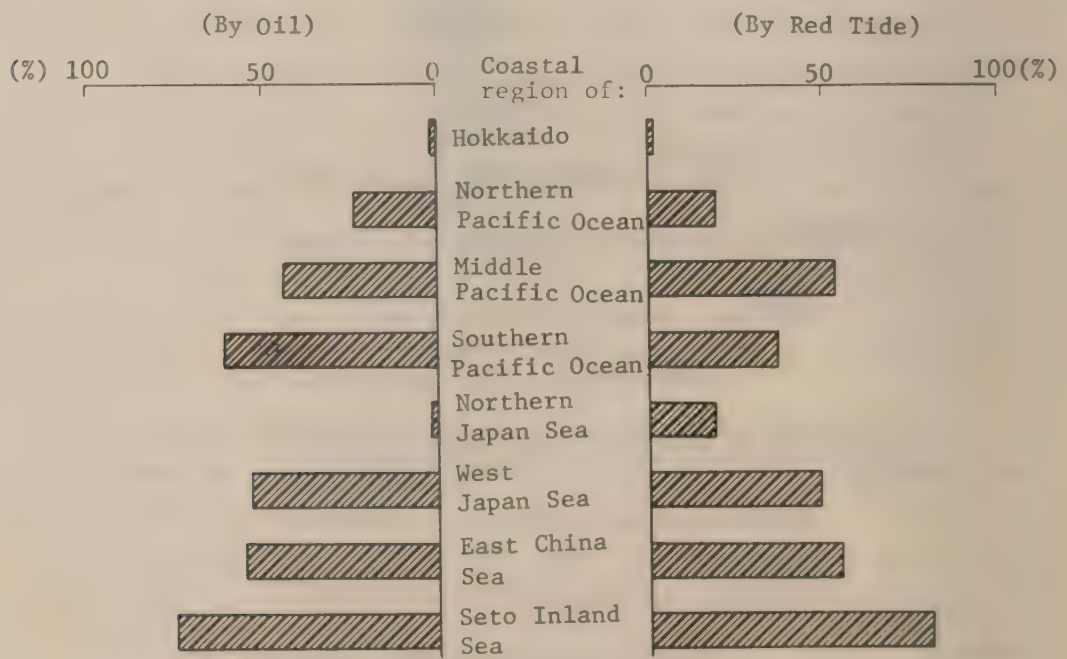
The number of fishery districts where their sea shores were polluted by oil during the past five years was 1,035 which was some 50% of the total. Out of the total number of fishery districts affected by water pollution of oil, 33% occured in Seto Inland Sea, 25% in East China Sea and 17% in Middle Pacific Ocean. In these three coastal regions, the water pollution occured for more than half the total fishery districts. The number of fisheries districts, which the water pollution due to oil occured during the past five years, was 45% higher than that occured during the previous five years period. Thus, it can be said from the above facts that the water pollution by oil has a tendency of windening its area.

The number of fishery districts that affected by red tide during the past five years was 1,071 which was 50% of the total. Of the total number of fishery districts affected by red tide, 34% occur-

ed "Seto" Inland Sea, 24% in East China Sea and 21% in Middle Pacific Ocean. Thus these three regions accounted for 79% of the total. In these coastal regions more than half of the total fishery districts were affected by red tide.

As compared to that in 1973, the occurence of red tide increased by 18%. Although such a rate is lower than that of the water pollution by oil, the water area affected by red tide has a tendency of widening its area.

Fig. 21 Number of Fishery Districts Affected by Water Pollution of Oil and Red Tide



3.5 Use of Coastal Ground by Leisure Fishing

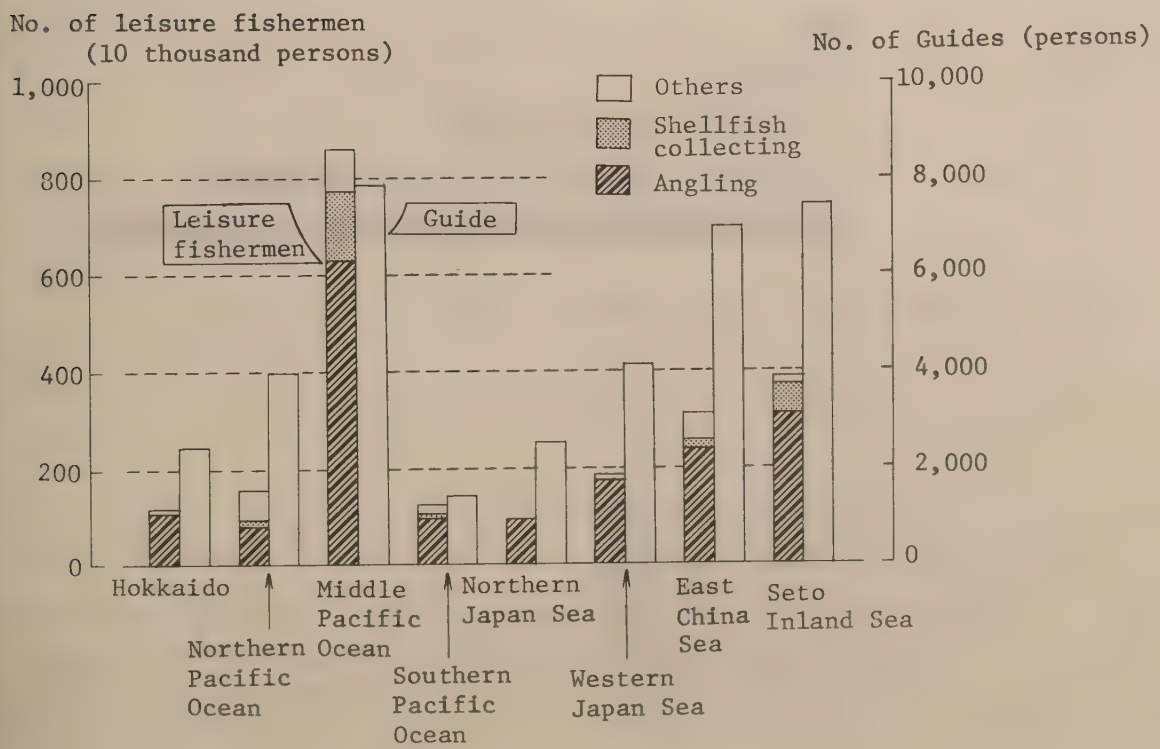
During the past one year the number of persons who enjoyed in leisure fishing was 22,680 thousand persons, of which the number of persons who used guides such as fisheries cooperatives, fishermen and professional fishing guides was 10.9 million persons. The latter was an increase of 1.7 million persons or 19% as compared with that in 1973.

A good number of leisure fishermen are found in the coastal regions such as Middle Pacific Ocean and Seto Inland Sea, where urbanization has well been progressed.

The number of persons who freely enjoyed in leisure fishing without any guides such as fisheries cooperatives, etc., accounted for 52% of the total.

The number of guides for leisure fishing was 37 thousand, which was an increase of 28% as compared with that of 1973. Of these the number of fishermen who engaged as guides was 87% of the total. The number of powered fishing boats used for leisure fishing was 37 thousand which was 14% of the total number of fishing boats of less than 5 tons. The above facts indicate that leisure fishing greatly affects to the environment of coastal fishery.

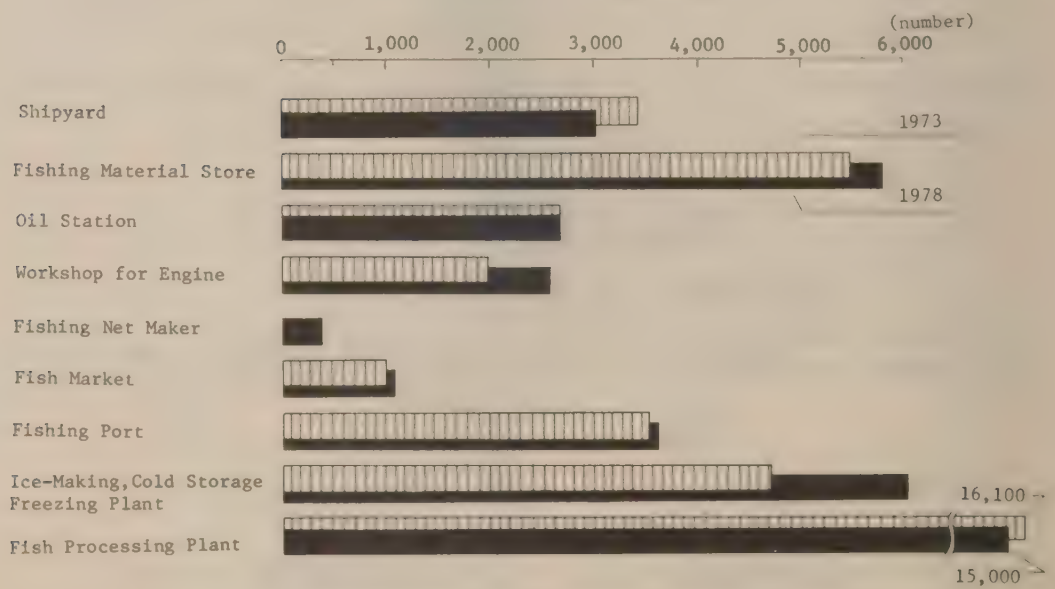
Fig. 22 Number of Persons Engaged in Leisure Fishing and Number of Guides for Leisure Fishing



3.6 Facilities Related to Fishery Industry

In keeping a close relationship with the stable development of fishery industry, the improvement of various facilities such as fishing port, fish market, fish processing plant, etc. has made a good progress. As a result of the rationalization in terms of man power saving, the Census revealed that the number and the size of these facilities are under a tendency of decrease.

Fig. 23 Number of Facilities related to Fishery Industry



(Note) Data of fishing net makers in 1973 is not available.

A. Fishing port

The total number of fishing ports including commercial ports used by fishing boats during the past one year was 3,629. The number of fishing ports of type 1,2,3 and 4 and commercial port in 1978

were 2,088, 499, 2,109, 89 and 850 respectively.

During the past five years the number of commercial ports and fishing ports of type 2 increased by 75 and 34 respectively, and the number of fishing port of type 1 decreased by 8. Above all, the total number of commercial and fishing ports used for fishery increased by 101 over that of 1973.

(Note) For the definitions of the above ports please see 3.2 of II.

B. Fisheries Cooperatives

The number of marine fisheries cooperatives and fish processing cooperatives established under the Law of Fisheries Cooperatives was 2,354 and the number of regular members for these cooperatives was 438 thousand persons. Of these cooperatives, small scale cooperatives with less than 200 regular members was as many as 71% of the total. Of these small cooperatives, the number of cooperatives with less than 50 members was 444 or 19% of the total.

In terms of the type of cooperatives, invested unit fisheries cooperatives, business type cooperatives, fish processing cooperatives and non-invested unit fisheries cooperatives are 90%, 5%, 5% and 0.4% of the total respectively.

In terms of the amount of capital paid, cooperatives with a capital of 20 to 50 million yen are most popular being as many as 22% of the total. This is followed by those with a capital of 10 to 20 million yen (19%) and those with a capital of 5 to 10 million yen (16%).

The number of cooperatives with economic activities was 2,279, which was 97% of the total. The main activity run by the most cooperatives is the sale of fishery products. In addition to the sale activity, 56% of the total fisheries cooperatives run purchasing and credit for the members.

C. Fish Market

The total number of fish markets where fishermen landed their catch was 1,111, and their total annual sale of fish transacted was 10,471 thousand metric tons in quantity or 3,273 billion yen in value.

Over the past five years after 1973, the number of fish markets increased by 9 and the total annual sale increased by 2,110 thousand metric tons. This was an increase of 25% in quantity and 1.4 times in value. This indicates that the role of marketing of fish through fish markets has been expanded.

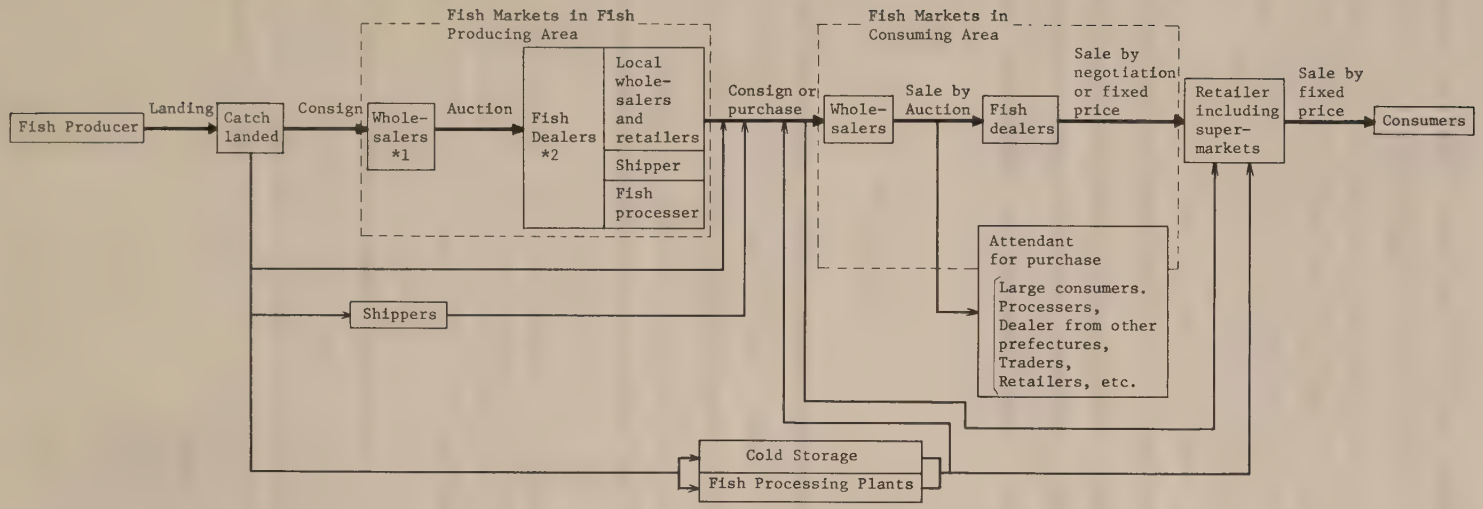
D. Fish Dealers at Fish Markets

The total number of fish dealers who bought fish at the fish markets was 51 thousand, which was an increase of 5% as compared with that of 1973.

Out of 51 thousand fish dealers, 80% was individuals, 18% companies and 2% others. 60% out of the total number of individuals were retailers. Of which, about one third are those without stores.

During the past five years, the number of the small scale fish dealers with annual sale of less than 1 million and 1 to 5 million yen decreased by 50% and 20% respectively, while that of the large scale fish dealers with annual sale of more than 5 million yen greatly increased. Of the latter, those with annual sale of more than 100 million yen remarkably increased, being 1.9 times as compared with that of 1973.

Fig. 24 Major Fish Marketing Channel in Japan



(Notes) *1 Fish is consigned by fish producers.

*2 Fish dealers who are authorized to buy fish through fish market.

E. Ice-Making, Cold Storage and Freezing Plant

The number of ice-making, cold storage and freezing plants equiped with more than five horse-power main engine which handled with fishery products during the past one year was 6,021, which was an increase of 1,311 plants or 28% as compared with that of 1973. Of these, the number of plants operated under the Warehouse Law consists of 28% of the total.

About 50% of the plants are run by companies. During the past five years, the number of plants under individual management increased by 487 or 36%, and those under fishery cooperative increased by 259 or 32%. And those under companies increased by 558 or 23%.

F. Fish Processing Plant

The number of plants that processed fishery products for the purpose to sell the products was 15 thousand, which was a decrease of 1,100 plants or 7% as compared with that of 1973. This was due to a great decrease in number of plants for salted and dried products. The number of plants for dried products especially decreased by 62%. On the other hand, owing to the shortage of raw materials, the number of plants for fish paste like "Kamaboko" and frozen "Surimi" in the coastal regions of Hokkaido and Northern Pacific Ocean decreased by 10 or 23% and by 12 or 55% respectively.

Of the total number of plants individuals were 69% and companies 29%. Small scale plants with less than 9 workers occupy 69% of the total, which are mostly individuals, whereas large scale plants with more than 30 workers are mostly run by companies, which are 84% of the total.

G. Shipyard

The number of shipyards that fully or partly engaged in the construction and repair of fishing boats during the past one year was 3,045, and the number of workers for these shipyards was 43 thousand persons. The number of the shipyards decreased by 394 or 11% and the number of the workers also decreased by 16 thousand or 27% as compared with that of 1973. This was mainly because of a decrease in number of small scale shipyards with less than three workers, which had generally constructed wooden boats. The reasons for such a decrease were conversion of wooden boat to FRP boat and the depression of boat building industry. However, the number of large scale shipyards with more than 4 workers increased.

H. Workshop for Engine

The number of workshops that engaged in the repaire of fishing boat engines during the past one year was 2,600, and the number of workers in these workshop was 17,000 persons. The number of the workshops increased by 564 or 28% and the number of the workers also increased by 281 persons or 2% as compared with that of 1973.

This was due to (i) an increase in the number of fishing boats of 3 - 20 gross tons engaging in small trawl, squid angling, beach seine, etc., (ii) an installation of new equipment to even small size fishing boats. The increased were mainly in the coastal areas of East China Sea and Seto Inland Sea.

The workshop is mostly operated in a small scale. The number of workshop run by individual with less than 3 workers consists of 51% of the total.

I. Fishing Net Maker

The number of fishing net makers was 416. Of these net makers,

that with 4 to 9 workers and that with 10 to 29 workers were the main component, being 30% each of the total. Net makers with more than 30 workers occupies 18% of the total, which is mostly run by companies.

Fishing net makers are mainly located in the coastal areas of Hokkaido, Northern Pacific Ocean and Middle Pacific Ocean. The coastal area of Middle Pacific Ocean is the most concentrated area, where 40% of the total are located.

J. Fishing Material Store

The number of stores that sold fishing materials directly to fishermen was 5,787, which was an increase of 310 or 6% as compared with that of 1973.

In terms of commodities transacted stores that handled mainly fishing nets and fishing gears were most popular, being 66% of the total. The total number of workers in the stores was 37 thousand persons, which was a slight decrease of 4% as compared with that of 1973. Classified it by size in terms of the number of workers, small scale stores with less than 3 workers consists of 58% of the total. Whereas, large scale stores with more than 30 workers are very few, being only 4% of the total.

K. Oil Station

The number of oil stations that held oil tanks on land and that sold oil to fishing boats during the past one year was 2,667, and the total capacity of oil tanks for these oil stations was 571 thousand kl. There was almost no change in both the number of the stations and capacity of oil tank during the past five years. The number of workers was 16 thousand persons, which was a decrease of 1,600 persons or 7% as compared with that of 1973.

IV Statistical Tables

I STATISTICS ON MARINE FISHING ESTABLISHMENTS

1 Basic Structure of Marine Fishery

1.1 By Sizes of Management

Size of Management		No. of fishing establishment	Fishing	
			No. of non-powered boats	No. of boats with outboard engine
Total	1	217 734	30 474	111 860
Without fishing boats	2	10 471	–	–
With boats				
Non-powered boats only	3	2 964	2 909	–
With powered boats				
less than 1 ton	4	46 203	2 426	40 311
1 - 3	5	46 237	2 426	9 747
3 - 5	6	33 384	1 831	8 062
5 - 10	7	10 989	785	3 421
10 - 20	8	5 693	486	1 526
20 - 30	9	739	97	197
30 - 50	10	1 087	97	233
50 - 100	11	1 721	68	206
100 - 200	12	645	14	72
200 - 500	13	545	28	35
500 - 1,000	14	300	5	7
1,000 tons and over	15	208	21	12
Large set net	16	1 217	1 088	902
Small set net	17	6 263	1 468	3 611
Beach seine	18	655	427	475
Mariculture				
"Nori" laver culture				
Without boats	19	505	–	–
With boats	20	24 408	12 314	23 005
Oyster culture	21	3 924	975	3 352
Pearl culture	22	1 755	552	2 389
Pearl oyster culture	23	1 335	146	1 304
"Wakame" seaweed culture	24	6 870	799	6 213
Yellowtail culture	25	3 473	721	2 146
Scallop culture	26	3 496	320	2 161
Other culture	27	2 647	398	2 473

boats			No. of workers engaged in fishing at sea during peak season			Average catch in value per establishment (10^4 Yen)	
Powered boats with inboard engine			Total	Family workers	Employees		
No.of boats	Tonnage (gross ton)	Horse-power					
178 638	2 024 211	8 804 667	585 411	361 250	224 161	1 052	1
–	–	–	14 281	14 144	137	53	2
–	–	–	4 327	4 115	212	40	3
12 429	9 038	66 112	67 197	65 455	1 742	103	4
47 746	87 099	717 555	68 770	65 981	2 789	175	5
35 704	136 381	1 034 488	63 148	53 295	9 853	387	6
15 205	78 919	540 144	30 788	20 398	10 390	749	7
8 364	83 104	555 147	28 169	10 840	17 329	1 743	8
1 875	17 354	125 705	6 069	1 657	4 412	2 980	9
2 528	42 866	251 656	11 596	1 875	9 721	5 013	10
3 533	122 059	673 103	26 144	2 410	23 734	9 986	11
1 723	89 215	498 240	16 567	745	15 822	21 715	12
1 485	176 773	722 946	18 959	340	18 619	31 689	13
1 117	205 797	762 190	18 299	97	18 202	70 786	14
1 960	824 748	1 803 185	42 463	179	42 284	280 525	15
2 555	18 138	107 152	17 152	4 733	12 419	6 786	16
6 251	18 085	119 978	21 421	13 090	8 331	515	17
247	645	4 418	7 117	3 259	3 858	236	18
–	–	–	953	917	36	54	19
14 809	46 571	333 469	57 702	51 519	6 183	533	20
3 712	13 632	82 048	10 021	7 558	2 463	597	21
1 937	4 960	36 890	7 908	3 514	4 394	1 291	22
674	1 238	8 898	2 775	2 275	500	310	23
3 434	5 251	38 482	13 653	13 276	377	153	24
6 452	2 808	213 368	14 840	7 258	7 582	3 925	25
3 525	10 488	83 327	7 674	6 973	701	624	26
1 373	3 789	26 166	7 418	5 347	2 071	867	27

I Basic Structure of Marine Fishery (Continued)

I.2 By Types of Fishing Gear mainly employed

Types of fishing gear mainly employed		No.of fishing establishment	Fishing	
			No.of non-powered boats	No.of boats with outboad engine
Total	1	217 734	30 474	111 860
Factory ship type				
Whaling	2	1	-	-
Trawls	3	8	-	-
Tuna long line	4	1	-	-
Salmon fishing	5	83	4	2
Crab fishing	6	3	-	-
North Pacific Ocean long line and gill net	7	14	-	-
Coastal whaling	8	19	-	2
Trawl				
Distat water trawl	9	78	-	-
Trawl, in East China Sea	10	53	-	-
Off-shore trawls				
One boat trawl	11	454	17	28
Pair trawl	12	69	4	7
Small size trawl	13	14 383	448	2 777
Other trawls	14	1 137	73	409
Purse seines				
One boat operation	15	736	68	158
Two boats operation	16	213	38	104
Others	17	820	116	230
Lift nets				
Saury stick-held dipnet	18	305	9	124
Other lift nets	19	1 624	144	622
Gill nets				
Salmon drift gill net	20	580	21	109
Other gill nets	21	26 238	1 654	12 065
Pole-and-line, angling				
Skipjack pole-and-line	22	1 819	94	162
Mackerel pole-and-line	23	463	12	75
Squid angling	24	14 104	1 035	4 496
Other angling	25	35 339	1 621	7 539
Long line				
Tuna long line	26	906	39	49
Salmon long line	27	264	11	113
Alaska pollack long line	28	127	9	43
Other long lines	29	6 795	385	1 573
Beach seine	30	655	427	475
Boat seine (Patch type)	31	636	48	231
Boat seine	32	2 945	230	663
Large set net	33	1 217	1 088	902
Small set net	34	6 263	1 468	3 611
Shelfish collecting	35	20 516	1 615	10 976
Seaweed collecting	36	15 150	1 303	12 827
Other gears	37	15 030	2 231	8 153
Mariculture				
"Nori" laver culture	38	24 913	12 314	23 005
Oyster culture	39	3 924	975	3 352
Perl culture	40	1 755	552	2 389
Pearl oyster culture	41	1 335	146	1 304
"Wakame" seaweed culture	42	6 870	799	6 213
Yellowtail culture	43	3 473	721	2 146
Scallop culture	44	3 496	320	2 161
Other cultures	45	2 647	398	2 473
Inland water fisheries and cultures	46	273	37	202

boats			No. of workers engaged in fishing at sea during peak season			Average catch in value per establishment (10^4 Yen)	
Powered boat with inboard engine							
No. of boats	Tonnage (gross ton)	Horse-power	Total	Family workers	Employees		
178 638	2 024 211	8 804 667	585 411	361 250	224 161	1 052	1
11	30 591	44 570	772	-	772	1 059 222	2
80	229 641	206 882	7 592	-	7 592	1 124 326	3
1	452	1 300	21	-	21	11 829	4
193	34 898	102 412	3 443	3	3 440	57 337	5
6	1 179	3 980	92	-	92	24 252	6
41	11 837	36 430	951	4	947	73 043	7
27	5 341	34 150	355	11	344	28 102	8
518	270 043	613 360	12 058	-	12 058	311 639	9
499	92 677	287 506	7 730	-	7 730	155 695	10
636	48 991	277 262	7 574	245	7 329	19 172	11
174	9 308	53 557	1 695	88	1 607	26 242	12
15 578	75 071	385 185	30 269	23 202	7 067	614	13
993	3 568	22 895	2 148	1 693	455	340	14
3 399	141 076	666 088	21 125	1 379	19 746	21 573	15
1 080	15 890	110 148	6 034	849	5 185	9 883	16
1 393	10 098	68 249	4 035	1 496	2 539	1 287	17
320	10 237	61 988	2 824	349	2 475	5 556	18
1 917	10 876	81 945	5 578	3 144	2 434	705	19
738	25 858	155 870	7 175	569	6 606	10 954	20
21 793	65 705	510 299	49 708	42 469	7 239	309	21
2 194	113 792	501 881	18 102	2 244	15 858	5 953	22
472	4 883	32 844	1 802	587	1 215	1 391	23
14 492	184 364	995 334	33 912	19 595	14 317	897	24
32 060	75 707	617 141	47 538	44 876	2 662	163	25
1 646	256 834	913 476	24 045	669	23 376	28 402	26
250	4 386	29 337	1 308	353	955	2 427	27
132	2 353	15 140	647	163	484	2 787	28
6 867	38 999	240 142	14 690	10 711	3 979	632	29
247	645	4 418	7 117	3 259	3 858	236	30
1 968	14 820	91 167	4 343	1 564	2 779	2 277	31
4 710	23 927	165 373	12 606	6 105	6 501	995	32
2 555	18 138	107 152	17 152	4 733	12 419	6 786	33
6 251	18 085	119 978	21 421	13 090	8 331	515	34
7 050	16 915	126 648	33 976	32 750	1 226	148	35
3 506	6 922	48 871	25 658	24 434	1 224	139	36
8 808	35 883	247 875	26 449	21 510	4 939	309	37
14 809	46 571	333 469	58 655	52 436	6 219	523	38
3 712	13 632	82 048	10 021	7 558	2 463	597	39
1 937	4 960	36 890	7 908	3 514	4 394	1 291	40
674	1 238	8 898	2 775	2 275	500	310	41
3 434	5 251	38 482	13 653	13 276	377	153	42
6 452	28 048	213 368	14 840	7 258	7 582	3 925	43
3 525	10 488	83 327	7 674	6 973	701	624	44
1 373	3 789	26 166	7 418	5 347	2 071	867	45
117	222	1 166	522	469	53	526	46

1 Basic Structure of Marine Fishery (Continued)

1.3 By Types of Management

Types of management		No. of fishing establishment	Fishing	
			No. of non-powered boats	No. of boats with outboard engine
Total	1	217 734	30 474	111 860
Fishing operator's household	2	210 123	28 039	108 588
Company	3	2 472	875	1 035
Fishery cooperative	4	261	257	180
Fishery production cooperative	5	249	235	169
Partnership	6	4 533	1 060	1 853
Governmental institution	7	96	8	35

1.4 By Types of Fishery Regulation System

Types of fishery regulation system		No. of fishing establishment	Fishing	
			No. of non-powered boats	No. of boats with outboard engine
Total	1	217 734	30 474	111 860
Fisheries under the Minister's licences	2	2 164	99	148
Fisheries under Prefectural Governors' licences	3	42 289	2 469	11 193
Fisheries under the Minister's certificate	4	997	34	102
Fishing right fisheries	5	114 051	24 474	84 971
Free fisheries	6	55 120	2 953	13 526
Other	7	3 113	445	1 920

1.5 By Water Areas mainly operated (In Terms of Distance from Coastal Line)

Types of water area mainly operated		No. of fishing establishment	Fishing	
			No. of non-powered boats	No. of boats with outboard engine
Total	1	217 734	30 474	111 860
Within 12 miles	2	205 741	29 914	109 473
12 - 200 miles	3	10 361	512	2 285
Beyond 200 miles				
Within 200 miles off foreign countries	4	991	10	68
Others	5	641	38	34

boats			No. of workers engaged in fishing at sea during peak season			Average catsh in value per establishment (10^4 Yen)	
Powered boats with inboard engine							
No.of boats	Tonnage (gross ton)	Horse-power	Total	Family workers	Employees		
178 638	2 024 211	8 804 667	585 411	361 250	224 161	1 052	1
163 072	785 502	5 064 258	443 950	338 635	105 315	495	2
7 897	1 109 375	3 126 447	92 127	-	92 127	42 952	3
652	14 349	66 272	5 957	2 410	3 547	13 588	4
806	22 846	101 279	5 961	1 444	4 517	13 770	5
6 063	58 113	347 627	35 094	18 761	16 333	2 526	6
148	34 025	98 784	2 322	-	2 322	4 744	7

boats			No. of workers engaged in fishing at sea during peak season			Average catch in value per establishment (10^4 Yen)	
Powered boats with inboard engine							
No. of boats	Tonnage (gross ton)	Horse-power	Total	Family workers	Employees		
178 638	2 024 211	8 804 667	585 411	361 250	224 161	1 052	1
5 526	1 153 117	3 376 242	91 113	1 343	89 770	49 910	2
49 181	300 241	1 851 569	123 917	70 771	53 146	867	3
1 429	124 133	529 094	11 873	882	10 991	9 021	4
69 758	209 084	1 516 150	262 833	209 393	53 440	512	5
49 523	165 666	1 253 348	85 206	73 871	11 335	259	6
3 221	71 966	278 264	10 469	4 990	5 479	911	7

boat			No. of workers engaged in fishing at sea during peak season			Average catch in value per establishment (10^4 Yen)	
Powered boats with inboard engine							
No. of boats	Tonnage (gross ton)	Horse-power	Total	Family workers	Employees		
178 638	2 024 211	8 804 667	585 411	361 250	224 161	1 052	1
161 548	568 881	3 977 719	444 891	345 448	99 443	465	2
13 308	384 553	2 068 203	69 721	14 808	54 913	4 600	3
2 378	728 841	1 743 235	45 783	729	45 054	59 924	4
1 404	341 934	1 015 510	25 016	265	24 751	41 392	5

2 Number of Marine Fishing Establishments

2.1 By Types of Fishing Gear mainly employed

Size of Management		Total	Factory ship type					North Pacific Ocean long line & gill net
			Whaling	Trawl	Tuna long line	Salmon fishing	Crab fishing	
Total	1	217 734	1	8	1	83	3	14
Without fishing boats	2	10 471	-	-	-	-	-	-
With boats								
Non-powered boats only	3	2 964	-	-	-	-	-	-
With powered boats			-	-	-	-	-	-
less than 1 ton	4	46 203	-	-	-	-	-	-
1 - 3	5	46 237	-	-	-	-	-	-
3 - 5	6	33 384	-	-	-	-	-	-
5 - 10	7	10 989	-	-	-	-	-	-
10 - 20	8	5 693	-	-	-	-	-	-
20 - 30	9	739	-	-	-	-	-	-
30 - 50	10	1 087	-	-	-	-	-	-
50 - 100	11	1 721	-	-	-	35	1	-
100 - 200	12	645	-	-	-	18	-	-
200 - 500	13	545	-	2	1	23	1	6
500 - 1,000	14	300	-	1	-	3	1	3
1,000 tons and over	15	208	1	5	-	4	-	5
Large set net	16	1 217	-	-	-	-	-	-
Small set net	17	6 263	-	-	-	-	-	-
Beach seine	18	655	-	-	-	-	-	-
Mariculture								
"Nori" laver culture								
Without boats	19	505	-	-	-	-	-	-
With boats	20	24 408	-	-	-	-	-	-
Oyster culture	21	3 924	-	-	-	-	-	-
Pearl culture	22	1 755	-	-	-	-	-	-
Pearl oyster culture	23	1 335	-	-	-	-	-	-
"Wakame" seaweek culture	24	6 870	-	-	-	-	-	-
Yellowtail culture	25	3 473	-	-	-	-	-	-
Scallop culture	26	3 496	-	-	-	-	-	-
Other culture	27	2 647	-	-	-	-	-	-

2.1 By Types of Fishing Gear mainly employed (Continued)

Size of Management		Purse seine	Lift nets		Gill nets		Angling	
		Other Purse seine	Saury Stick-held dipnet	Other lift nets	Salmon drift gill nets	Other gill nets	Skipjack pole-and-line	Mackerel angling
Total	1	820	305	1 624	580	26 238	1 819	463
Without fishing boats	2	2	-	35	2	335	2	-
With boats								
Non-powered boats only	3	-	1	9	3	295	2	-
With powered boats								
less than 1 ton	4	34	2	138	20	8 445	90	54
1 - 3	5	101	7	349	10	9 680	370	155
3 - 5	6	330	20	448	124	5 172	638	126
5 - 10	7	182	107	290	136	1 680	172	46
10 - 20	8	101	84	287	65	497	145	40
20 - 30	9	16	6	42	8	45	17	2
30 - 50	10	20	3	12	30	41	17	8
50 - 100	11	23	59	13	116	31	163	30
100 - 200	12	8	11	1	46	14	61	1
200 - 500	13	2	4	-	15	2	81	-
500 - 1,000	14	-	1	-	5	1	42	1
1,000 tons and over	15	1	-	-	-	-	19	-
Large set net	16	-	-	-	-	-	-	-
Small set net	17	-	-	-	-	-	-	-
Beach seine	18	-	-	-	-	-	-	-
Mariculture								
"Nori" laver culture								
Without boats	19	-	-	-	-	-	-	-
With boats	20	-	-	-	-	-	-	-
Oyster culture	21	-	-	-	-	-	-	-
Pearl culture	22	-	-	-	-	-	-	-
Pearl oyster culture	23	-	-	-	-	-	-	-
"Wakame" seaweed culture	24	-	-	-	-	-	-	-
Yellowtail culture	25	-	-	-	-	-	-	-
Scallop culture	26	-	-	-	-	-	-	-
Other culture	27	-	-	-	-	-	-	-

Coastal Whaling	Trawls								
	Distant water trawl	Trawl in East China Sea	Off-shore trawls		Small size trawl	Other trawls	Purse seine		
			One boat trawl	Pair trawl			One boat Operation	Two boats Operation	
19	78	53	454	69	14 383	1 137	736	213	1
-	-	-	-	-	135	4	-	1	2
-	-	-	-	-	3	9	-	-	3
-	-	-	-	-	245	261	11	-	4
1	-	-	-	-	2 600	296	31	5	5
6	-	-	-	-	7 796	454	59	8	6
1	-	-	-	-	2 530	88	53	7	7
1	-	-	2	-	981	23	102	25	8
-	-	-	15	-	57	-	51	19	9
6	-	-	114	4	20	1	112	30	10
1	-	-	188	12	11	1	136	73	11
-	1	1	89	42	4	-	39	29	12
-	17	10	35	10	1	-	65	15	13
-	24	21	5	1	-	-	40	1	14
3	36	21	6	-	-	-	37	-	15
-	-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
-	-	-	-	-	-	-	-	-	18
-	-	-	-	-	-	-	-	-	19
-	-	-	-	-	-	-	-	-	20
-	-	-	-	-	-	-	-	-	21
-	-	-	-	-	-	-	-	-	22
-	-	-	-	-	-	-	-	-	23
-	-	-	-	-	-	-	-	-	24
-	-	-	-	-	-	-	-	-	25
-	-	-	-	-	-	-	-	-	26
-	-	-	-	-	-	-	-	-	27

		Long lines						
Squid angling	Other anglings	Tuna long line	Samon long line	Alaska pollack long line	Other long lines	Beach seine	Boat seine of "Patch" type	
14 104	35 339	906	264	127	6 795	655	636	1
20	208	-	-	-	28	-	8	2
111	529	-	-	2	27	-	-	3
1 628	9 804	1	30	2	863	-	5	4
3 888	16 660	9	13	5	2 678	-	25	5
3 997	6 516	8	38	31	2 054	-	44	6
2 009	1 228	17	76	28	608	-	131	7
1 477	357	192	54	22	280	-	130	8
125	19	19	15	14	23	-	90	9
168	5	34	30	19	149	-	142	10
433	8	187	5	3	66	-	56	11
127	3	113	3	1	11	-	5	12
91	1	142	-	-	5	-	-	13
22	1	123	-	-	2	-	-	14
8	-	61	-	-	1	-	-	15
-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	17
-	-	-	-	-	-	655	-	18
-	-	-	-	-	-	-	-	19
-	-	-	-	-	-	-	-	20
-	-	-	-	-	-	-	-	21
-	-	-	-	-	-	-	-	22
-	-	-	-	-	-	-	-	23
-	-	-	-	-	-	-	-	24
-	-	-	-	-	-	-	-	25
-	-	-	-	-	-	-	-	26
-	-	-	-	-	-	-	-	27

2 Number of Marine Fishing Establishments (Continued)

2.1 By Types of Fishing Gear Mainly Employed (Continued)

Size of Management		Boat seine	Large set net	Small set net	Shellfish collecting	Seaweeds collecting	Other fishings
Total	1	2 945	1 217	6 263	20 516	15 150	15 030
Without fishing boats	2	11	-	-	5 170	2 681	1 800
With boats							
Non-powered boats only	3	4	-	-	678	755	520
With powered boats							
less than 1 ton	4	39	-	-	9 476	9 042	5 866
1 - 3	5	455	-	-	3 396	2 021	3 426
3 - 5	6	1 178	-	-	1 451	516	2 353
5 - 10	7	504	-	-	281	125	683
10 - 20	8	505	-	-	45	7	271
20 - 30	9	130	-	-	4	2	19
30 - 50	10	96	-	-	5	1	20
50 - 100	11	21	-	-	3	-	46
100 - 200	12	2	-	-	1	-	14
200 - 500	13	-	-	-	6	-	10
500 - 1,000	14	-	-	-	-	-	2
1,000 tons and over	15	-	-	-	-	-	-
Large set net	16	-	1 217	-	-	-	-
Small set net	17	-	-	6 263	-	-	-
Beach seine	18	-	-	-	-	-	-
Mariculture							
"Nori" laver culture							
Without boats	19	-	-	-	-	-	-
With boats	20	-	-	-	-	-	-
Oyster culture	21	-	-	-	-	-	-
Pearl culture	22	-	-	-	-	-	-
Pearl oyster culture	23	-	-	-	-	-	-
"Wakame" seaweek culture	24	-	-	-	-	-	-
Yellowtail culture	25	-	-	-	-	-	-
Scallop culture	26	-	-	-	-	-	-
Other culture	27	-	-	-	-	-	-

2.2 By Types of Management

Size of Management		Total	Fishing operator's household	Company	Fishery cooperative	Fishery production cooperative	Partnership
Total	1	217 734	210 123	2 472	261	249	4 533
Without fishing boats	2	10 471	10 464	1	1	-	4
With boats							
Non-powered boats only	3	2 964	2 941	-	-	-	23
With powered boats							
less than 1 ton	4	46 203	46 129	2	2	-	70
1 - 3	5	46 237	46 001	6	6	1	223
3 - 5	6	33 384	32 765	30	4	1	584
5 - 10	7	10 989	10 409	47	8	2	522
10 - 20	8	5 693	5 118	75	5	8	486
20 - 30	9	739	592	28	4	4	111
30 - 50	10	1 087	793	127	3	25	138
50 - 100	11	1 721	1 043	475	12	33	153
100 - 200	12	645	301	273	5	10	46
200 - 500	13	545	195	275	4	14	22
500 - 1,000	14	300	60	209	2	11	5
1,000 tons and over	15	208	15	181	3	3	1
Large set net	16	1 217	564	227	91	65	270
Small set net	17	6 263	5 421	49	38	19	736
Beach seine	18	655	442	1	1	4	207
Mariculture							
"Nori" laver culture							
Without boats	19	505	501	-	-	-	4
With boats	20	24 408	23 840	14	1	3	549
Oyster culture	21	3 924	3 891	6	-	3	24
Pearl culture	22	1 755	1 591	152	3	8	1
Pearl oyster culture	23	1 335	1 314	15	1	1	4
"Wakame" seaweed culture	24	6 870	6 788	-	7	1	73
Yellowtail culture	25	3 473	3 016	207	33	28	186
Scallop culture	26	3 496	3 436	-	4	-	56
Other culture	27	2 647	2 493	72	23	5	35

Mariculture								Inland fisheries	
"Nori" laver culture	Oyster culture	Pearl culture	Pearl oyster culture	"Wakame" seaweed culture	Yellowtail culture	Scallop culture	Other cultures		
24 913	3 924	1 755	1 335	6 870	3 473	3 496	2 647	273	1
-	-	-	-	-	-	-	-	29	2
-	-	-	-	-	-	-	-	16	3
-	-	-	-	-	-	-	-	147	4
-	-	-	-	-	-	-	-	56	5
-	-	-	-	-	-	-	-	17	6
-	-	-	-	-	-	-	-	7	7
-	-	-	-	-	-	-	-	-	8
-	-	-	-	-	-	-	-	1	9
-	-	-	-	-	-	-	-	-	10
-	-	-	-	-	-	-	-	-	11
-	-	-	-	-	-	-	-	-	12
-	-	-	-	-	-	-	-	-	13
-	-	-	-	-	-	-	-	-	14
-	-	-	-	-	-	-	-	-	15
-	-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
-	-	-	-	-	-	-	-	-	18
505	-	-	-	-	-	-	-	-	19
24 408	-	-	-	-	-	-	-	-	20
-	3 924	-	-	-	-	-	-	-	21
-	-	1 755	-	-	-	-	-	-	22
-	-	-	1 335	-	-	-	-	-	23
-	-	-	-	6 870	-	-	-	-	24
-	-	-	-	-	3 473	-	-	-	25
-	-	-	-	-	-	3 496	-	-	26
-	-	-	-	-	-	-	2 647	-	27

2.3 By Water Areas Mainly Operated (In Terms of Distance from Coastal Line)

Governmental institution	Total	Within 12 miles	12 - 200 miles	Beyond 200 miles		
				Within 200 miles off foreign countries	Others	
96	217 734	205 741	10 361	991	641	1
1	10 471	10 432	39	-	-	2
-	2 964	2 961	3	-	-	3
-	46 203	46 116	84	3	-	4
-	46 237	45 326	910	1	-	5
-	33 384	30 398	2 975	10	1	6
1	10 989	8 959	2 014	12	4	7
1	5 693	3 509	2 070	68	46	8
-	739	504	217	12	6	9
1	1 087	535	469	39	44	10
5	1 721	369	892	311	149	11
10	645	93	334	143	75	12
35	545	54	167	177	147	13
13	300	6	65	130	99	14
5	208	2	52	84	70	15
-	1 217	1 210	6	1	-	16
-	6 263	6 247	16	-	-	17
-	655	654	1	-	-	18
-	505	505	-	-	-	19
1	24 408	24 407	1	-	-	20
-	3 924	3 924	-	-	-	21
-	1 755	1 755	-	-	-	22
-	1 335	1 335	-	-	-	23
1	6 870	6 863	7	-	-	24
3	3 473	3 441	32	-	-	25
-	3 496	3 495	1	-	-	26
19	2 647	2 641	6	-	-	27

2 Number of Marine Fishing Establishmeuts (Continued)

2.4 By Number of Fishermen Engaged at Sea during Peak Season

No. of

Size of Management		Total	1 person	2 persons	3 - 4	5 - 9	10 - 19	20 - 49
Total	1	217 734	95 052	76 665	30 258	9 380	3 755	2 019
Without fishing boats	2	10 471	7 322	2 689	446	11	1	1
With boats								
Non-powered boats only	3	2 964	2 107	659	158	26	9	5
With powered boats								
less than 1 ton	4	46 203	29 866	13 063	3 071	180	17	5
1 - 3	5	46 237	28 446	14 575	2 970	207	35	3
3 - 5	6	33 384	13 847	13 382	5 380	712	56	7
5 - 10	7	10 989	2 225	4 026	3 463	1 043	222	10
10 - 20	8	5 693	310	943	1 771	2 264	368	37
20 - 30	9	739	12	28	106	378	194	19
30 - 50	10	1 087	4	8	55	583	338	97
50 - 100	11	1 721	-	1	23	493	782	410
100 - 200	12	645	-	-	1	32	208	382
200 - 500	13	545	-	-	-	7	50	400
500 - 1,000	14	300	-	-	-	-	3	107
1,000 tons and over	15	208	-	-	-	-	-	4
Large set net	16	1 217	188	120	88	167	370	240
Small set net	17	6 263	1 450	2 270	1 400	749	341	48
Beach seine	18	655	67	73	89	158	165	89
Mariculture								
"Nori" laver culture								
Without boats	19	505	163	262	75	5	-	-
With boats	20	24 408	2 962	14 496	6 030	830	82	7
Oyster culture	21	3 924	1 117	1 801	680	208	105	13
Pearl culture	22	1 755	195	732	407	267	101	44
Pearl oyster culture	23	1 335	525	580	178	35	12	5
"Wakame" seaweek culture	24	6 870	2 414	2 988	1 361	85	14	7
Yellowtail culture	25	3 473	315	1 105	1 105	681	204	59
Scallop culture	26	3 496	845	1 721	815	101	13	1
Other culture	27	2 647	672	1 143	586	158	65	19

2.5 By Types of Fishery Regulation

Size of Management		Total	Fisheries under the Ministers licences	Fisheries under the Prefectural Governor's licences	Fisheries under the Minister's certificate	Fishing right fisheries	Free fisheries
Total	1	217 734	2 164	42 289	997	114 051	55 120
Without fishing boats	2	10 471	-	858	-	8 536	1 037
With boats							
Non-powered boats only	3	2 964	3	153	1	1 888	892
With powered boats							
less than 1 ton	4	46 203	11	3 678	10	28 619	13 564
1 - 3	5	46 237	6	10 717	32	12 731	22 365
3 - 5	6	33 384	25	15 144	20	5 316	12 166
5 - 10	7	10 989	22	5 767	27	1 371	2 993
10 - 20	8	5 693	64	3 048	60	352	1 599
20 - 30	9	739	31	513	8	26	105
30 - 50	10	1 087	184	564	123	28	168
50 - 100	11	1 721	658	498	450	9	86
100 - 200	12	645	359	116	135	4	25
200 - 500	13	545	367	57	99	-	7
500 - 1,000	14	300	251	15	24	-	4
1,000 tons and over	15	208	183	9	8	-	2
Large set net	16	1 217	-	-	-	1 215	-
Small set net	17	6 263	-	1 004	-	5 139	107
Beach seine	18	655	-	86	-	560	-
Mariculture							
"Nori" laver culture							
Without boats	19	505	-	-	-	505	-
With boats	20	24 408	-	58	-	24 339	-
Oyster culture	21	3 924	-	-	-	3 918	-
Pearl culture	22	1 755	-	-	-	1 751	-
Pearl oyster culture	23	1 335	-	-	-	1 334	-
"Wakame" seaweed culture	24	6 870	-	2	-	6 864	-
Yellowtail culture	25	3 473	-	-	-	3 451	-
Scallop culture	26	3 496	-	-	-	3 494	-
Other culture	27	2 647	-	2	-	2 601	-

Fishermen Engaged						
50 - 99	100 - 149	150 - 199	200 - 299	300 - 499	500 persons and over	
423	109	35	22	5	11	1
1	-	-	-	-	-	2
-	-	-	-	-	-	3
1	-	-	-	-	-	4
1	-	-	-	-	-	5
-	-	-	-	-	-	6
-	-	-	-	-	-	7
-	-	-	-	-	-	8
2	-	-	-	-	-	9
2	-	-	-	-	-	10
12	-	-	-	-	-	11
21	-	-	1	-	-	12
86	2	-	-	-	-	13
170	19	1	-	-	-	14
61	73	33	21	5	11	15
34	9	1	-	-	-	16
4	1	-	-	-	-	17
13	1	-	-	-	-	18
-	-	-	-	-	-	19
1	-	-	-	-	-	20
-	-	-	-	-	-	21
6	3	-	-	-	-	22
-	-	-	-	-	-	23
1	-	-	-	-	-	24
4	-	-	-	-	-	25
-	-	-	-	-	-	26
3	1	-	-	-	-	27

2.6 By Number of Days Engaged in Fishing

Others	Total	Less than 29 days	30 - 89	90 - 149	150 - 199	206 - 249	250 days and over	
3 113	217 734	74	26 681	38 174	32 624	40 748	79 433	1
40	10 471	-	5 164	3 750	809	438	310	2
27	2 964	-	1 397	1 048	275	147	97	3
321	46 203	1	12 015	14 342	7 667	5 694	6 484	4
386	46 237	6	4 182	8 793	8 901	9 839	14 516	5
713	33 384	6	1 239	3 221	4 890	8 122	15 906	6
809	10 989	10	337	759	1 318	2 568	5 997	7
570	5 693	6	137	308	693	1 312	3 237	8
56	739	2	18	32	95	157	435	9
20	1 087	3	20	57	135	214	658	10
20	1 721	1	15	75	158	318	1 154	11
6	645	-	3	11	23	72	536	12
15	545	1	-	3	10	37	494	13
6	300	-	-	1	1	13	285	14
6	208	-	-	1	1	3	203	15
2	1 217	3	28	85	148	277	676	16
13	6 263	5	341	722	732	1 030	3 433	17
9	655	8	187	226	99	59	76	18
-	505	-	147	258	63	23	14	19
11	24 408	-	382	1 991	3 900	6 738	11 397	20
6	3 924	2	124	503	498	653	2 144	21
4	1 755	-	16	49	83	242	1 365	22
1	1 335	-	39	69	179	390	658	23
4	6 870	14	709	1 462	1 390	1 262	2 033	24
22	3 473	-	7	16	39	127	3 284	25
2	3 496	4	68	135	231	675	2 383	26
44	2 647	2	106	257	286	338	1 658	27

2 Number of Marine Fishing Establishments (Continued)

2.7 By Sizes of Catch in Value

Size of Management		Total	Less than 300 thousand Yen	300 - 500 thousand Yen	500 thousand - 1 million Yen	1 - 2 million Yen	2 - 5 million Yen
Total	1	217 734	26 107	14 538	28 437	41 125	61 234
Without fishing boats	2	10 471	5 221	1 724	1 890	1 117	467
With boats							
Non-powered boats only	3	2 964	1 587	582	490	235	68
With powered boats							
less than 1 ton	4	46 203	12 131	6 829	10 915	9 174	6 232
1 - 3	5	46 237	4 011	3 312	8 524	14 329	14 260
3 - 5	6	33 384	555	574	1 963	6 155	15 888
5 - 10	7	10 989	78	55	256	1 032	4 099
10 - 20	8	5 693	26	12	45	165	972
20 - 30	9	739	5	4	3	8	45
30 - 50	10	1 087	6	-	1	6	17
50 - 100	11	1 721	15	1	-	1	10
100 - 200	12	645	5	-	-	3	3
200 - 500	13	545	7	1	-	-	2
500 - 1,000	14	300	4	-	-	-	-
1,000 tons and over	15	208	1	-	1	1	2
Large set net	16	1 217	9	6	5	18	61
Small set net	17	6 263	269	230	747	1 418	2 038
Beach seine	18	655	115	56	129	134	131
Mariculture							
"Nori" laver culture							
Without boats	19	505	356	37	41	48	17
With boats	20	24 408	641	365	1 023	2 609	9 921
Oyster culture	21	3 924	153	94	377	858	1 246
Pearl culture	22	1 755	19	12	52	189	615
Pearl oyster culture	23	1 335	23	23	142	315	617
"Wakame" seaweek culture	24	6 870	610	500	1 457	2 173	2 030
Yellowtail culture	25	3 473	45	3	16	44	220
Scallop culture	26	3 496	52	57	215	624	1 189
Other culture	27	2 647	163	61	145	469	1 084

2.8 Number of Fishing Operator's Households

2.8.1 By Types of Fishing Gear Mainly Employed

Size of Management		Total	Factory ship type					North Pacific Ocean long line & gill net
			Walling	Trawl	Tuna long line	Salmon fishing	Crab fishing	
Total	1	210 123	-	-	-	15	1	2
Without fishing boats	2	10 464	-	-	-	-	-	-
With boats								
Non-powered boats only	3	2 941	-	-	-	-	-	-
With powered boats								
less than 1 ton	4	46 129	-	-	-	-	-	-
1 - 3	5	46 001	-	-	-	-	-	-
3 - 5	6	32 765	-	-	-	-	-	-
5 - 10	7	10 409	-	-	-	-	-	-
10 - 20	8	5 118	-	-	-	-	-	-
20 - 30	9	592	-	-	-	-	-	-
30 - 50	10	793	-	-	-	-	-	-
50 - 100	11	1 043	-	-	-	8	-	-
100 - 200	12	301	-	-	-	3	-	-
200 - 500	13	195	-	-	-	4	-	2
500 - 1,000	14	60	-	-	-	-	1	-
1,000 tons and over	15	15	-	-	-	-	-	-
Large set net	16	564	-	-	-	-	-	-
Small set net	17	5 421	-	-	-	-	-	-
Beach seine	18	442	-	-	-	-	-	-
Mariculture								
"Nori" laver culture								
Without boats	19	501	-	-	-	-	-	-
With boats	20	23 840	-	-	-	-	-	-
Oyster culture	21	3 891	-	-	-	-	-	-
Pearl culture	22	1 591	-	-	-	-	-	-
Pearl oyster culture	23	1 314	-	-	-	-	-	-
"Wakame" seaweed culture	24	6 788	-	-	-	-	-	-
Yellowtail culture	25	3 016	-	-	-	-	-	-
Scallop culture	26	3 436	-	-	-	-	-	-
Other culture	27	2 493	-	-	-	-	-	-

5 - 10 million Yen	10 - 20 million Yen	20 - 50 million Yen	50 - 100 million Yen	100 million - 1 billion Yen	1 billion Yen and over	
24 914	9 980	5 994	2 549	2 651	205	1
48	4	-	-	-	-	2
2	-	-	-	-	-	3
848	59	14	1	-	-	4
1 658	124	18	-	1	-	5
6 570	1 405	253	19	2	-	6
3 169	1 686	511	96	6	1	7
1 325	1 459	1 332	324	32	1	8
83	183	287	104	16	1	9
40	115	420	395	87	-	10
17	45	363	638	628	3	11
1	4	32	93	498	6	12
1	3	14	30	479	8	13
1	1	2	10	238	44	14
1	-	1	2	67	132	15
179	173	274	238	252	2	16
855	405	227	54	20	-	17
57	28	5	-	-	-	18
4	-	2	-	-	-	19
7 095	2 293	408	48	5	-	20
590	352	215	33	6	-	21
447	232	98	57	34	-	22
189	16	6	4	-	-	23
84	14	2	-	-	-	24
578	761	1 202	361	236	7	25
700	451	201	6	1	-	26
372	167	107	36	43	-	27

Coastal whaling	Trawls								
	Distant water trawl	Trawl in East China Sea	Off-shore trawls		Small size trawl	Other trawls	Purse seine		
			One boat trawl	Pair trawl			One boat operation	Two boats operation	
11	6	-	248	18	13 992	1 120	435	106	1
-	-	-	-	-	135	4	-	1	2
-	-	-	-	-	3	8	-	-	3
-	-	-	-	-	243	261	11	-	4
1	-	-	-	-	2 542	295	31	5	5
6	-	-	-	-	7 704	448	56	8	6
1	-	-	-	-	2 405	86	48	4	7
1	-	-	2	-	898	16	79	9	8
-	-	-	13	-	43	-	39	13	9
2	-	-	80	3	12	1	67	20	10
-	-	-	121	6	6	1	67	31	11
-	-	-	28	8	1	-	9	11	12
-	3	-	4	1	-	-	19	3	13
-	1	-	-	-	-	-	8	1	14
-	2	-	-	-	-	-	1	-	15
-	-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
-	-	-	-	-	-	-	-	-	18
-	-	-	-	-	-	-	-	-	19
-	-	-	-	-	-	-	-	-	20
-	-	-	-	-	-	-	-	-	21
-	-	-	-	-	-	-	-	-	22
-	-	-	-	-	-	-	-	-	23
-	-	-	-	-	-	-	-	-	24
-	-	-	-	-	-	-	-	-	25
-	-	-	-	-	-	-	-	-	26
-	-	-	-	-	-	-	-	-	27

2 Number of Marine Fishing Establishments (Continued)

2.8 Number of Fishing Operator's Households (Continued)

2.8.1 By Types of Fishing Gear Mainly Employed (Continued)

Size of Management		Purse seine	Lift nets		Gill nets		Angling	
		Other purse seine	Saury stick-held dipnet	Other lift nets	Salmon drift gill net	Other gill nets	Skipjack pole-and-line	Mackerel angling
Total	1	741	194	1 558	438	25 835	1 627	434
Without fishing boats	2	2	-	35	2	334	2	-
With boats								
Non-powered boats only	3	-	1	9	3	281	2	-
With powered boats								
less than 1 ton	4	34	2	137	20	8 412	90	54
1 - 3	5	99	7	344	10	9 609	367	153
3 - 5	6	317	19	440	113	5 042	632	125
5 - 10	7	168	66	280	127	1 572	169	44
10 - 20	8	88	69	266	60	465	136	38
20 - 30	9	14	4	35	8	40	16	1
30 - 50	10	8	2	9	23	39	12	5
50 - 100	11	10	23	3	53	28	107	14
100 - 200	12	1	1	-	15	11	40	-
200 - 500	13	-	-	-	4	2	37	-
500 - 1,000	14	-	-	-	-	-	15	-
1,000 tons and over	15	-	-	-	-	-	2	-
Large set net	16	-	-	-	-	-	-	-
Small set net	17	-	-	-	-	-	-	-
Beach seine	18	-	-	-	-	-	-	-
Mariculture								
"Nori" laver culture								
Without boats	19	-	-	-	-	-	-	-
With boats	20	-	-	-	-	-	-	-
Oyster culture	21	-	-	-	-	-	-	-
Pearl culture	22	-	-	-	-	-	-	-
Pearl oyster culture	23	-	-	-	-	-	-	-
"Wakame" seaweek culture	24	-	-	-	-	-	-	-
Yellowtail culture	25	-	-	-	-	-	-	-
Scallop culture	26	-	-	-	-	-	-	-
Other culture	27	-	-	-	-	-	-	-

2.8.1 By Types of Fishing Gear Mainly Employed (Continued)

Size of Management		Boat seine	Large set net	Small set net	Shellfish collecting	Seaweeds collecting	Other fishings
Total	1	2 519	564	5 421	20 443	15 124	14 740
Without fishing boats	2	11	-	-	5 170	2 678	1 799
With boats							
Non-powered boats only	3	2	-	-	678	752	518
With powered boats							
less than 1 ton	4	39	-	-	9 471	9 041	5 847
1 - 3	5	438	-	-	3 381	2 007	3 411
3 - 5	6	1 110	-	-	1 430	514	2 231
5 - 10	7	427	-	-	263	123	629
10 - 20	8	364	-	-	44	7	236
20 - 30	9	78	-	-	2	2	17
30 - 50	10	45	-	-	2	-	16
50 - 100	11	5	-	-	-	-	24
100 - 200	12	-	-	-	-	-	9
200 - 500	13	-	-	-	2	-	3
500 - 1,000	14	-	-	-	-	-	-
1,000 tons and over	15	-	-	-	-	-	-
Large set net	16	-	564	-	-	-	-
Small set net	17	-	-	5 421	-	-	-
Beach seine	18	-	-	-	-	-	-
Mariculture							
"Nori" laver culture							
Without boats	19	-	-	-	-	-	-
With boats	20	-	-	-	-	-	-
Oyster culture	21	-	-	-	-	-	-
Pearl culture	22	-	-	-	-	-	-
Pearl oyster culture	23	-	-	-	-	-	-
"Wakame" seaweed ulture	24	-	-	-	-	-	-
Yellowtail culture	25	-	-	-	-	-	-
Scallop culture	26	-	-	-	-	-	-
Other culture	27	-	-	-	-	-	-

Squid angling	Other anglings	Long lines				Beach seine	Boat seine of "patch" type	
		Tuna long line	Samon long line	Alaska pollack long line	Other long lines			
13 767	35 189	545	255	123	6 644	442	426	1
20	208	-	-	-	27	-	8	2
111	529	-	-	2	26	-	-	3
1 628	9 799	1	30	2	857	-	5	4
3 883	16 642	9	12	5	2 669	-	25	5
3 968	6 456	8	38	30	2 018	-	35	6
1 981	1 206	17	75	26	586	-	99	7
1 428	321	172	52	21	262	-	84	8
121	15	19	14	14	20	-	63	9
158	4	28	29	19	118	-	91	10
321	6	132	3	3	55	-	16	11
88	2	68	2	1	3	-	-	12
51	1	57	-	-	2	-	-	13
6	-	28	-	-	-	-	-	14
3	-	6	-	-	1	-	-	15
-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	17
-	-	-	-	-	-	442	-	18
-	-	-	-	-	-	-	-	19
-	-	-	-	-	-	-	-	20
-	-	-	-	-	-	-	-	21
-	-	-	-	-	-	-	-	22
-	-	-	-	-	-	-	-	23
-	-	-	-	-	-	-	-	24
-	-	-	-	-	-	-	-	25
-	-	-	-	-	-	-	-	26
-	-	-	-	-	-	-	-	27

Mariculture								Inland fisheries	
"Nori" laver culture	Oyster culture	Pearl culture	Pearl oyster culture	"Wakame" seaweed culture	Yellowtail culture	Scallop culture	Other cultures		
24 341	3 891	1 591	1 314	6 788	3 016	3 436	2 493	270	1
-	-	-	-	-	-	-	-	28	2
-	-	-	-	-	-	-	-	16	3
-	-	-	-	-	-	-	-	145	4
-	-	-	-	-	-	-	-	56	5
-	-	-	-	-	-	-	-	17	6
-	-	-	-	-	-	-	-	7	7
-	-	-	-	-	-	-	-	-	8
-	-	-	-	-	-	-	-	1	9
-	-	-	-	-	-	-	-	-	10
-	-	-	-	-	-	-	-	-	11
-	-	-	-	-	-	-	-	-	12
-	-	-	-	-	-	-	-	-	13
-	-	-	-	-	-	-	-	-	14
-	-	-	-	-	-	-	-	-	15
-	-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
-	-	-	-	-	-	-	-	-	18
501	-	-	-	-	-	-	-	-	19
23 840	-	-	-	-	-	-	-	-	20
-	3 891	-	-	-	-	-	-	-	21
-	-	1 591	-	-	-	-	-	-	22
-	-	-	1 314	-	-	-	-	-	23
-	-	-	-	6 788	-	-	-	-	24
-	-	-	-	-	3 016	-	-	-	25
-	-	-	-	-	-	3 436	-	-	26
-	-	-	-	-	-	-	2 493	-	27

2.8 Number of Fishing Operator's Households (Continued)

2.8.2 By Types of Fishermen Engaged at Sea During Peak Season

Size of Management		Total	Family members only	Employees only	Family members and employees together			
					Sub-total	Both were same in number	No. of family member was bigger than that of employee	No. of employees was bigger than that of family member
Total	1	210 123	184 724	1 255	24 144	7 011	5 486	11 647
Without fishing boats	2	10 464	10 450	1	13	6	-	7
With boats								
Non-powered boats only	3	2 941	2 915	1	25	9	7	9
With powered boats								
less than 1 ton	4	46 129	45 108	62	959	555	211	193
1 - 3	5	46 001	44 523	33	1 445	764	284	397
3 - 5	6	32 765	27 732	49	4 984	2 228	1 124	1 632
5 - 10	7	10 409	6 929	84	3 396	972	817	1 607
10 - 20	8	5 118	1 492	156	3 470	503	486	2 481
20 - 30	9	592	64	25	503	26	41	436
30 - 50	10	793	18	105	670	18	20	632
50 - 100	11	1 043	1	307	735	21	9	705
100 - 200	12	301	-	129	172	-	2	170
200 - 500	13	195	1	110	84	-	-	84
500 - 1,000	14	60	-	47	13	-	-	13
1,000 tons and over	15	15	-	13	2	-	-	2
Large set net	16	564	317	39	208	15	12	181
Small set net	17	5 421	4 035	37	1 349	304	244	801
Beach seine	18	442	165	3	274	17	21	236
Mariculture								
"Nori" laver culture								
Without boats	19	501	483	1	17	7	4	6
With boats	20	23 840	20 848	21	2 971	937	1 381	653
Oyster culture	21	3 891	3 408	5	478	86	102	290
Pearl culture	22	1 591	1 144	6	441	71	139	231
Pearl oyster culture	23	1 314	1 234	2	78	23	17	38
"Wakame" seaweek culture	24	6 788	6 613	4	171	71	49	51
Yellowtail culture	25	3 016	1 865	12	1 139	223	311	605
Scallop culture	26	3 436	3 139	3	294	93	117	84
Other culture	27	2 493	2 240	-	253	62	88	103

(Note) In this table, No. of fishing operator's household was counted as to whether fishing was undertaken by family member only or together with employee.

2.8.4 By Sizes of Catch in Value

Size of Management		Total	Less than 100 thousand Yen	100 - 300 thousand Yen	300 - 500 thousand Yen	500 thousand-1 million Yen	1 - 2 million Yen
Total	1	210 123	8 898	16 996	14 423	28 195	40 682
Without fishing boats	2	10 464	2 168	3 052	1 724	1 889	1 117
With boats							
Non-powered boats only	3	2 941	624	959	578	485	226
With powered boats							
less than 1 ton	4	46 129	3 938	8 183	6 810	10 907	9 159
1 - 3	5	46 001	1 022	2 980	3 302	8 491	14 265
3 - 5	6	32 765	139	400	559	1 940	6 083
5 - 10	7	10 409	22	49	55	240	992
10 - 20	8	5 118	10	7	12	37	152
20 - 30	9	592	2	2	2	3	7
30 - 50	10	793	2	-	-	-	3
50 - 100	11	1 043	7	2	-	-	-
100 - 200	12	301	-	-	-	-	-
200 - 500	13	195	2	1	-	-	-
500 - 1,000	14	60	1	-	-	-	-
1,000 tons and over	15	15	-	-	-	-	-
Large set net	16	564	-	5	4	4	16
Small set net	17	5 421	58	174	203	690	1 296
Beach seine	18	442	28	58	37	77	90
Mariculture							
"Nori" laver culture							
Without boats	19	501	211	145	37	41	46
With boats	20	23 840	351	286	364	1 021	2 597
Oyster culture	21	3 891	18	134	93	376	853
Pearl culture	22	1 591	11	4	11	50	189
Pearl oyster culture	23	1 314	8	8	23	142	313
"Wakame" seaweed culture	24	6 788	139	458	491	1 437	2 153
Yellowtail culture	25	3 016	32	4	3	15	42
Scallop culture	26	3 436	14	30	56	210	620
Other culture	27	2 493	91	55	59	140	463

2.8.3 By Number of Days Engaged in Fishing

Total	30 - 89 days	90 - 149 days	150 - 199 days	200 - 249 days	250 days and over	
210 123	25 852	37 187	31 715	39 572	75 797	1
10 464	5 162	3 747	809	438	308	2
2 941	1 383	1 040	274	147	97	3
46 129	11 987	14 322	7 658	5 689	6 473	4
46 001	4 112	8 739	8 868	9 811	14 471	5
32 765	1 109	3 089	4 812	7 989	15 766	6
10 409	236	681	1 226	2 459	5 807	7
5 118	67	218	623	1 195	3 015	8
592	5	21	76	120	370	9
793	5	17	80	158	533	10
1 043	4	24	83	183	749	11
301	-	4	9	29	259	12
195	-	-	4	13	178	13
60	-	-	-	5	55	14
15	-	-	-	-	15	15
564	4	16	52	119	373	16
5 421	150	511	638	932	3 190	17
442	104	150	72	49	67	18
501	147	256	63	21	14	19
23 840	381	1 896	3 691	6 575	11 297	20
3 891	123	497	494	652	2 125	21
1 591	14	47	80	235	1 215	22
1 314	39	69	178	388	640	23
6 788	668	1 447	1 384	1 260	2 029	24
3 016	6	12	35	111	2 852	25
3 436	51	131	229	665	2 360	26
2 493	95	253	277	329	1 539	27

2 - 5 million Yen	5 - 10 million Yen	10 - 20 million Yen	20 - 50 million Yen	50 - 100 million Yen	100 million - 1 billion Yen	1 billion Yen and over	
60 405	24 096	9 067	4 742	1 610	994	15	1
466	47	1	-	-	-	-	2
67	2	-	-	-	-	-	3
6 217	843	57	14	1	-	-	4
14 172	1 637	114	18	-	-	-	5
15 712	6 404	1 311	201	16	-	-	6
3 980	3 020	1 538	443	65	5	-	7
894	1 239	1 304	1 172	263	28	-	8
40	72	155	224	77	7	1	9
11	23	90	317	295	52	-	10
5	11	28	261	415	313	1	11
2	-	2	22	62	210	3	12
-	-	1	5	10	175	1	13
-	-	-	-	-	54	5	14
-	-	-	-	1	10	4	15
45	152	135	127	48	28	-	16
1 854	730	273	120	18	5	-	17
90	45	15	2	-	-	-	18
17	4	-	-	-	-	-	19
9 872	6 978	2 167	198	6	-	-	20
1 245	588	346	206	30	2	-	21
606	432	207	65	12	4	-	22
617	188	13	2	-	-	-	23
2 022	81	5	2	-	-	-	24
210	560	711	1 075	272	92	-	25
1 180	689	446	188	3	-	-	26
1 081	351	148	80	16	9	-	27

2.8 Number of Fishing Operator's Households (Continued)

2.8.5 By Extent of Dependency on Fishery

Size of Management		Total	Exclusively engaged in fishery	Engaged in jobs other than fishery		
				Sub-total	Mainly engaged in fishery	Partly engaged in fishery
Total	1	210 123	53 497	156 626	89 911	66 715
Without fishing boats	2	10 464	695	9 769	1 037	8 732
With boats						
Non-powered boats only	3	2 941	335	2 606	329	2 277
With powered boats						
less than 1 ton	4	46 129	6 458	39 671	12 337	27 334
1 - 3	5	46 001	11 604	34 397	20 715	13 682
3 - 5	6	32 765	12 284	20 481	16 683	3 798
5 - 10	7	10 409	4 310	6 099	5 387	712
10 - 20	8	5 118	2 500	2 618	2 447	171
20 - 30	9	592	287	305	278	27
30 - 50	10	793	432	361	350	11
50 - 100	11	1 043	602	441	421	20
100 - 200	12	301	178	123	122	1
200 - 500	13	195	120	75	71	4
500 - 1,000	14	60	37	23	22	1
1,000 tons and over	15	15	11	4	4	-
Large set net	16	564	315	249	226	23
Small set net	17	5 421	1 233	4 188	2 768	1 420
Beach seine	18	442	42	400	123	277
Mariculture						
"Nori" laver culture						
Without boats	19	501	19	482	55	427
With boats	20	23 840	5 616	18 224	15 347	2 877
Oyster culture	21	3 891	1 189	2 702	1 821	881
Pearl culture	22	1 591	766	825	706	119
Pearl oyster culture	23	1 314	436	878	687	191
"Wakame" seaweek culture	24	6 788	563	6 225	3 357	2 868
Yellowtail culture	25	3 016	1 589	1 427	1 348	79
Scallop culture	26	3 436	1 344	2 092	1 806	286
Other culture	27	2 493	532	1 961	1 464	497

2.8.6 By Types of Side-business (Continued)

Size of Management		Fishing operator's households mainly engaged in fishing			Fishing operator's households partly engaged in fishing	
		Employee				
		Employee for fishery	Employee for works other than fishery		Sub-total	Agriculture
			Permanent	Part time		
Total	1	11 679	22 210	13 822	66 715	14 343
Without fishing boats	2	104	173	191	8 732	2 888
With boats						
Non-powered boats only	3	28	53	81	2 277	531
With powered boats						
less than 1 ton	4	2 186	2 515	3 057	27 334	5 208
1 - 3	5	2 690	6 064	3 210	13 682	2 266
3 - 5	6	2 487	4 807	2 694	3 798	530
5 - 10	7	792	1 493	819	712	45
10 - 20	8	352	729	346	171	9
20 - 30	9	30	71	28	27	5
30 - 50	10	18	112	31	11	-
50 - 100	11	41	158	35	20	1
100 - 200	12	10	41	7	1	-
200 - 500	13	10	21	4	4	-
500 - 1,000	14	2	10	1	1	-
1,000 tons and over	15	1	2	-	-	-
Large set net	16	32	54	39	23	3
Small set net	17	336	648	300	1 420	267
Beach seine	18	4	27	19	277	105
Mariculture						
"Nori" laver culture						
Without boats	19	3	12	9	427	177
With boats	20	492	3 115	1 392	2 877	1 247
Oyster culture	21	259	473	225	881	291
Pearl culture	22	33	172	46	119	10
Pearl oyster culture	23	92	49	23	191	81
"Wakame" seaweed culture	24	791	491	596	2 868	531
Yellowtail culture	25	197	372	90	79	7
Scallop culture	26	384	289	160	286	54
Other culture	27	305	259	419	497	87

2.8.6 By Types of Side-Business

Total	Fishing operator's households mainly engaged in fishing						
	Sub-total	Own account business					
		Agriculture	Fish processing	Guide for leisure fishing	Seasonal inn	Others	
156 626	89 911	27 820	1 488	3 579	1 815	7 498	1
9 769	1 037	441	16	1	24	87	2
2 606	329	127	1	2	2	- 35	3
39 671	12 337	2 941	98	227	264	1 049	4
34 397	20 715	4 673	192	1 525	403	1 958	5
20 481	16 683	3 742	267	889	410	1 387	6
6 099	5 387	1 236	135	283	163	466	7
2 618	2 447	542	115	49	66	248	8
305	278	84	25	3	3	34	9
361	350	78	56	1	5	49	10
441	421	72	16	-	18	81	11
123	122	25	4	-	3	32	12
75	71	20	1	-	1	14	13
23	22	5	1	-	-	3	14
4	4	-	-	-	-	1	15
249	226	39	17	4	12	29	16
4 188	2 768	939	75	64	106	300	17
400	123	42	6	4	1	20	18
482	55	22	1	-	-	8	19
18 224	15 347	8 916	177	275	166	814	20
2 702	1 821	621	26	44	18	155	21
825	706	351	4	2	9	89	22
878	687	469	7	4	4	39	23
6 225	3 357	985	171	58	62	203	24
1 427	1 348	400	49	17	25	198	25
2 092	1 806	750	12	113	26	72	26
1 961	1 464	300	16	14	24	127	27

Fishing operator's households partly engaged in fishing							
Own account business				Employee			
Fish processing	Guide for leisure fishing	Seasonal inn	Others	Employee for fishery	Employee for works other than fishery		
					Permanent	Part time	
497	969	1 329	9 226	11 259	19 461	9 631	1
19	4	101	985	700	2 886	1 149	2
14	3	9	320	195	647	558	3
176	116	473	3 852	4 188	8 003	5 318	4
80	368	396	2 217	2 612	4 457	1 286	5
34	264	111	514	1 272	727	346	6
10	90	24	82	338	83	40	7
7	30	-	30	57	26	12	8
5	4	-	3	5	4	1	9
3	-	-	3	3	2	-	10
6	-	-	8	1	3	1	11
1	-	-	-	-	-	-	12
-	-	-	2	2	-	-	13
-	-	-	1	-	-	-	14
-	-	-	-	-	-	-	15
-	1	-	6	6	6	1	16
19	6	68	235	263	386	176	17
5	5	5	62	8	72	15	18
1	-	-	55	3	146	45	19
40	9	28	320	208	845	180	20
5	9	20	70	95	319	72	21
-	1	10	33	9	44	12	22
1	4	-	15	33	48	9	23
40	55	74	250	1 094	559	265	24
10	-	1	23	25	13	-	25
14	-	5	44	72	58	39	26
7	-	4	96	70	127	106	27

3 Statistics on Mariculture

3.1 "Nori" Laver Culture

A. Number of establishments

B. Area of culture

Size of culture (Area under culture)		Total	"Nori" laver culture only	"Nori" laver culture combined with			Total area of culture (1,000 m^2)	Average area of culture per establishment (m^2)
				Other cultures	Capture (Fishing)	Other cultures and capture (Fishing)		
Total	1	29 793	10 489	1 567	15 719	2 018	147 826	4 962
Less than 100 m^2	2	372	64	33	129	146	20	56
100 - 300	3	987	358	104	341	184	202	205
300 - 500	4	650	219	86	228	117	255	394
500 - 1,000	5	2 083	488	216	998	381	1 550	744
1,000 - 2,000	6	7 590	2 594	451	4 151	394	11 492	1 514
2,000 - 3,000	7	6 156	2 037	284	3 441	394	15 250	2 477
3,000 - 5,000	8	6 314	2 352	212	3 504	246	24 316	3 851
5,000 - 10,000	9	4 371	1 759	149	2 361	102	28 816	6 593
10,000 m^2 and over	10	1 270	618	32	566	54	65 922	51 907

3.3 Pearl Culture

A. Number of establishments

B. Number of rafts

Size of culture (Number of rafts)		Total	Pearl culture only	Pearl culture combined with			Total number of rafts	Average No. of rafts per establishment
				Other culture	Capture (Fishing)	Other culture and capture (Fishing)		
Total	1	1 999	1 150	558	181	110	86 605	43
Less than 5 rafts	2	174	40	49	59	26	469	3
5 - 10	3	315	109	100	66	40	2 174	7
10 - 15	4	344	190	114	21	19	3 992	12
15 - 30	5	610	423	152	19	16	12 499	20
30 - 50	6	312	216	77	13	6	11 157	36
50 - 100	7	114	86	25	2	1	7 309	64
100 - 500	8	106	70	33	1	2	20 644	195
500 - 1,000	9	12	8	4	-	-	7 344	612
1,000 rafts and over	10	12	8	4	-	-	21 017	1 751

3.2 Oyster Culture

A. Number of establishments

B. Area of culture

Total	Oyster culture only	Oyster culture combined with			Total area of culture (1,000 m^2)	Average area of culture per establishment (m^2)	
		Other cultures	Capture (Fishing)	Other culture and capture (Fishing)			
6 153	1,626	1 102	1 501	1 924	8 789	1 429	1
654	52	199	119	284	34	53	2
1 897	323	441	338	795	374	197	3
1 048	249	250	195	354	395	377	4
955	267	119	348	221	651	682	5
644	262	43	223	116	885	1 375	6
327	177	16	97	37	819	2 507	7
316	194	11	53	58	1 211	3 833	8
192	84	10	70	28	1 276	6 651	9
120	18	13	58	31	3 140	26 170	10

3.4 Pearl Oyster Culture

A. Number of establishments

B. Number of rafts

Total	Pearl oyster culture only	Pearl oyster culture combined with			Total number of rafts	Average No. of rafts per establishment	
		Other cultures	Capture (Fishing)	Other cultures and capture (Fishing)			
1 749	1 147	272	237	93	30 972	18	1
199	77	47	48	27	618	3	2
534	327	78	88	41	3 460	6	3
475	366	55	42	12	5 430	11	4
397	308	36	48	5	7 286	18	5
65	44	16	4	1	2 265	35	6
22	8	12	2	-	1 361	62	7
55	16	27	5	7	8 952	163	8
1	1	-	-	-	600	600	9
1	-	1	-	-	1 000	1 000	10

3.5 "Wakame" Seaweed Culture

A. Number of establishments — B. Length of trunk rope

Size of culture (Length of trunk rope cultured)		Total	"Wakame" seaweed culture only only	"Wakame" seaweed culture combined with			Total length of trunk rope
				Other cultures	Capture (Fishing)	Other cultures and capture (Fishing)	
Total	1	14 731	1 021	731	8 623	4 356	10 548
Less than 100 m	2	953	37	60	671	185	47
100 - 200	3	1 856	207	99	1 207	343	239
200 - 500	4	3 814	332	239	2 332	911	1 157
500 - 1,000	5	4 213	187	175	2 410	1 441	2 949
1,000 - 2,000	6	3 190	170	115	1 572	1 333	4 032
2,000 - 3,000	7	527	59	34	320	114	1 149
3,000 m and over	8	178	29	9	111	29	973

3.6 Yellowtail Culture

A. Number of establishments — B. Area of culture

Size of culture (Area under culture)		Total	Yellowtail culture only	Yellowtail culture combined with			Total area of culture (1,000 m^2)
				Other cultures	Capture (Fishing)	Other cultures and capture (Fishing)	
Total	1	3 968	1 608	526	1 479	355	7 034
Less than 100 m^2	2	251	79	39	106	27	15
100 - 300	3	1 403	497	123	651	132	251
300 - 500	4	824	332	105	309	78	315
500 - 1,000	5	753	379	110	198	66	507
1,000 - 2,000	6	345	169	64	87	25	442
2,000 - 3,000	7	111	42	34	29	6	262
3,000 - 5,000	8	101	41	19	32	9	373
5,000 - 10,000	9	82	30	13	32	7	567
10,000 m^2 and over	10	98	39	19	35	5	4 298

C. Length of parent rope

Average length of trunk rope per establishment	Total length of parent rope	Average length of parent rope per establishment	
716	16 262	1 104	1
49	242	255	2
129	1 028	554	3
303	2 810	737	4
700	4 268	1 013	5
1 264	5 402	1 694	6
2 180	1 429	2 712	7
5 467	1 081	6 074	8

3.7 Scallop Culture

A. Number of Establishments

B. Number of scallops under culture

Average area of culture per establishment (m^2)	Size of culture (No. of scallops under culture)	Total	Scallop culture only	Scallop culture combined with			Total no. of scallops under culture (1,000 pieces)	Average No. of scallops under culture per establishment (1,000 pieces)
				Other cultures	Capture	Other cultures and capture		
1 773	Total	6 603	789	386	3 031	2 397	704 303	107
61	Less than 5 thousand shells	1 246	54	104	137	951	2 117	2
179	5 - 10	469	44	43	127	255	3 178	7
383	10 - 30	1 241	104	97	591	449	21 018	17
673	30 - 50	781	71	29	438	243	29 071	37
1 284	50 - 100	1 081	140	28	642	271	74 078	69
2 363	100 - 150	494	87	19	302	86	59 336	120
3 703	150 - 200	262	48	14	169	31	44 059	168
6 918	200 - 300	365	60	39	220	46	88 304	242
43 859	300 thousand shells and over	664	181	13	405	65	383 142	577

II STATISTICS ON FISHING BOATS

1 Number of Fishing Boats

Size of Management		Total	Non-powered boats	Boats with outboard engine	Powered boats		
					Sub-total	Less than 1 gross ton	1 - 3
Total	1	320 972	30 474	111 860	178 638	21 108	75 227
Without fishing boats	2	-	-	-	-	-	-
With boats							
Non-powered boats only	3	2 909	2 909	-	-	-	-
With powered boats							
less than 1 ton	4	55 239	2 499	40 311	12 429	12 429	-
1 - 3	5	59 919	2 426	9 747	47 746	1 693	46 053
3 - 5	6	45 597	1 831	8 062	35 704	1 023	3 729
5 - 10	7	19 411	785	3 421	15 205	674	3 097
10 - 20	8	10 376	486	1 526	8 364	186	976
20 - 30	9	2 169	97	197	1 875	40	201
30 - 50	10	2 858	97	233	2 528	21	163
50 - 100	11	3 807	68	206	3 533	29	118
100 - 200	12	1 809	14	72	1 723	13	30
200 - 500	13	1 548	28	35	1 485	4	18
500 - 1,000	14	1 129	5	7	1.117	1	4
1,000 tons and over	15	1 993	21	12	1 960	3	13
Large set net	16	4 545	1 088	902	2 555	41	677
Small set net	17	11 330	1 468	3 611	6 251	663	3 442
Beach seine	18	1 149	427	475	247	18	154
Mariculture							
"Nori" laver culture							
Without boats	19	-	-	-	-	-	-
With boats	20	50 128	12 314	23 005	14 809	1 296	5 923
Oyster culture	21	8 039	975	3 352	3 712	393	2 009
Pearl culture	22	4 878	552	2 389	1 937	245	1 164
Pearl oyster culture	23	2 124	146	1 304	674	191	381
"Wakame" seaweed culture	24	10 446	799	6 213	3 434	1 209	1 936
Yellowtail culture	25	9 319	721	2 146	6 452	488	2 554
Scallop culture	26	6 006	320	2 161	3 525	222	1 806
Other culture	27	4 244	398	2 473	1 373	226	779

with in-board engine by gross tonnage classes													
3 - 5	5 - 10	10 - 20	20 - 30	30 - 50	50 - 100	100 - 150	150 - 200	200 - 300	350 - 500	500 -1000	1000-3000	3000 gross tons and over	
53 813	12 600	8 517	198	1 233	3 214	838	335	1 029	369	47	63	47	1
-	-	-	-	-	-	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	-	-	-	-	3
-	-	-	-	-	-	-	-	-	-	-	-	-	4
-	-	-	-	-	-	-	-	-	-	-	-	-	5
30 952	-	-	-	-	-	-	-	-	-	-	-	-	6
4 614	6 820	-	-	-	-	-	-	-	-	-	-	-	7
1 709	1 482	4 011	-	-	-	-	-	-	-	-	-	-	8
553	528	446	107	-	-	-	-	-	-	-	-	-	9
503	526	752	13	550	-	-	-	-	-	-	-	-	10
395	494	1 069	22	114	1 292	-	-	-	-	-	-	-	11
99	155	359	16	151	796	81	23	-	-	-	-	-	12
28	44	173	25	147	569	130	39	245	63	-	-	-	13
8	18	24	4	77	261	217	52	378	72	1	-	-	14
9	25	26	3	177	282	407	220	405	234	46	63	47	15
648	554	626	-	3	6	-	-	-	-	-	-	-	16
1 592	422	128	1	2	1	-	-	-	-	-	-	-	17
68	5	2	-	-	-	-	-	-	-	-	-	-	18
-	-	-	-	-	-	-	-	-	-	-	-	-	19
7 304	261	25	-	-	-	-	-	-	-	-	-	-	20
775	194	339	2	-	-	-	-	-	-	-	-	-	21
381	125	21	-	1	-	-	-	-	-	-	-	-	22
93	8	1	-	-	-	-	-	-	-	-	-	-	23
228	49	11	1	-	-	-	-	-	-	-	-	-	24
2 269	655	460	4	11	7	2	1	1	-	-	-	-	25
1 315	171	11	-	-	-	-	-	-	-	-	-	-	26
270	64	33	-	-	-	1	-	-	-	-	-	-	27

2 Number, Tonnage and Horse-Power of Powered Fishing Boats

3 Number of Powered Fishing Boats by Kinds of Equipment Installed

A. Whole boats

Tonnage classes		Total No. of powered boats	Total gross tonnage	Total horse powers	Total No. of powered boats	Navigation equipment, etc.			
						Remote control equipment for engine	Wireless telephone	Radar	Auto angler
Total	1	178 638	2 024 211	8 804 667	178 638	71 933	51 569	18 457	12 454
Less than 1 gross ton	2	21 108	15 471	120 918	21 108	3 422	409	30	30
1 - 3	3	75 227	140 139	1 145 849	75 227	22 452	10 280	511	1 650
3 - 5	4	53 813	226 198	1 689 342	53 813	26 350	19 709	3 503	4 011
5 - 10	5	12 600	98 011	645 871	12 600	7 498	8 225	3 407	2 611
10 - 15	6	4 712	60 972	377 457	4 712	3 223	3 403	1 883	885
15 - 20	7	3 805	70 699	450 966	3 805	2 788	3 010	2 287	1 103
20 - 30	8	198	5 422	32 732	198	138	165	140	85
30 - 40	9	461	16 687	97 862	461	376	405	383	111
40 - 50	10	772	36 042	209 379	772	635	715	731	325
50 - 60	11	1 040	60 488	337 242	1 040	917	978	996	288
60 - 70	12	548	36 758	217 291	548	490	510	530	147
70 - 80	13	202	15 601	84 670	202	161	185	198	63
80 - 90	14	181	15 487	69 910	181	122	174	165	108
90 - 100	15	1 243	121 469	580 777	1 243	989	1 150	1 142	611
100 - 150	16	838	103 930	505 081	838	726	738	736	19
150 - 200	17	335	62 099	203 738	335	282	311	303	45
200 - 350	18	1 029	302 283	1 013 490	1 029	934	798	999	242
350 - 500	19	369	157 621	515 750	369	335	249	357	118
500 -1,000	20	47	35 469	107 630	47	26	46	47	1
1,000 -3,000	21	63	125 599	168 621	63	39	63	63	1
3,000 gross tons and over	22	47	317 757	232 091	47	30	46	46	-

B. Boats with 5 gross tons and over (Continued)

Tonnage classes		Fishing equipment						Rapid refriger-ating system	Cold storage for fresh fish
		Rope reel, auto reel	Rope winder	Power block	Buoy roller	Side roller	Net handler		
Total	1	4 111	2 944	1 424	2 767	6 940	3 476	3 123	4 298
Less than 1 gross ton	2	-	-	-	-	-	-	-	-
1 - 3	3	-	-	-	-	-	-	-	-
3 - 5	4	-	-	-	-	-	-	-	-
5 - 10	5	1 116	839	448	918	2 349	1 154	42	283
10 - 15	6	647	443	182	540	1 056	577	5	201
15 - 20	7	299	279	120	495	1 107	503	61	405
20 - 30	8	27	26	16	22	51	26	9	22
30 - 40	9	78	69	38	52	131	67	9	62
40 - 50	10	123	108	44	137	201	147	113	282
50 - 60	11	235	280	70	143	451	161	79	654
60 - 70	12	104	117	50	88	289	214	170	354
70 - 80	13	42	68	12	21	90	48	107	90
80 - 90	14	15	13	5	10	29	21	29	63
90 - 100	15	241	157	122	141	345	285	750	611
100 - 150	16	481	71	164	72	319	165	251	433
150 - 200	17	95	54	38	18	66	38	148	193
200 - 350	18	438	352	75	91	367	54	892	464
350 - 500	19	115	59	20	17	82	13	328	153
500 - 1,000	20	9	4	11	1	5	1	31	6
1,000 - 3,000	21	20	2	6	1	2	2	52	11
3,000 gross tons and over	22	26	3	3	-	-	-	47	11

B. Boats of 5 gross tons and over

Total	Navigation equipment					
	Omega, decca	Satellite navigator system	Facsimile	Variable pitch propella	Side thruster	
28 490	3 629	2 154	3 525	2 023	455	1
-	-	-	-	-	-	2
-	-	-	-	-	-	3
-	-	-	-	-	-	4
12 600	742	66	94	304	75	5
4 712	317	10	22	135	38	6
3 805	373	80	168	94	33	7
198	29	-	11	13	3	8
461	63	11	14	26	9	9
772	172	87	130	53	54	10
1 040	388	234	396	106	49	11
548	213	214	311	63	21	12
202	65	111	116	26	9	13
181	36	16	41	24	3	14
1 243	411	245	561	284	56	15
838	225	113	288	263	20	16
335	47	61	108	71	11	17
1 029	332	653	833	412	54	18
369	176	205	287	117	16	19
47	15	7	43	20	2	20
63	13	23	58	9	2	21
47	12	18	44	3	-	22

4 Number of Powered Fishing Boats by Water Areas Mainly Operated

Total	Within 12 miles	12 - 200 miles	Within 200 miles off foreign countries		
			Beyond 200 miles	Others	
178 638	162 342	12 841	2 190	1 265	1
21 108	21 068	40	-	-	2
75 227	74 194	1 032	1	-	3
53 813	50 176	3 624	11	2	4
12 600	10 349	2 222	17	12	5
4 712	3 590	1 109	11	2	6
3 805	2 331	1 314	92	68	7
198	87	107	1	3	8
461	140	289	19	13	9
772	104	536	73	59	10
1 040	69	681	193	97	11
548	61	294	91	102	12
202	12	74	68	48	13
181	30	102	41	8	14
1 243	63	676	417	87	15
838	54	464	199	121	16
335	12	123	169	31	17
1 029	2	112	480	435	18
369	-	37	178	154	19
47	-	4	30	13	20
63	-	1	55	7	21
47	-	-	44	3	22

III STATISTICS ON FISHING EMPLOYEE'S HOUSEHOLDS

1 Number of Fishing Employee's Households by Types of Fishing Gear Mainly Engaged

Type of income sources		Total	Factory ship type			
			Whaling	Trawl	Tuna long line	Salmon fishing
Total	1	127 382	901	1 365	947	2 203
Exclusively from fishing employees	2	54 971	516	663	486	1 056
Mainly from fishing employees	3	56 623	349	604	301	1 010
Partly from fishing employees	4	15 788	36	98	160	137

1 Number of Fishing Employee's Households by Types of Fishing Gear Mainly Engaged (Continued)

Type of income sources		Trawls (Continued)		Purse Seines		
		Small size trawl	Other trawls	One boat operation	Two boats operation	Other purse seines
Total	1	5 091	563	12 385	4 256	1 642
Exclusively from fishing employees	2	2 148	251	5 475	1 395	541
Mainly from fishing employees	3	2 459	240	5 985	2 408	835
Partly from fishing employees	4	484	72	925	453	266

1 Number of Fishing Employee's Households by Types of Fishing Gear Mainly Engaged (Continued)

Type of income sources		Angling	Tuna long line			
		Other anglings	Tuna long line	Salmon long line	Alaska pollack long line	Other long line
Total	1	1 599	13 862	549	323	2 747
Exclusively from fishing employees	2	709	7 672	302	170	1 455
Mainly from fishing employees	3	634	5 141	195	120	1 155
Partly from fishing employees	4	256	1 049	52	33	137

Crab fishing	North Pacific Ocean long line & gill net	Coastal whaling	Trawls				
			Distant water trawl	Trawl in East China Sea	Off-shore trawl		
					One boat trawl	Pair trawl	
419	721	210	6 885	4 346	5 414	1 466	1
142	411	127	4 154	2 961	2 900	743	2
250	263	78	2 278	1 232	2 342	659	3
27	47	5	453	153	172	64	4

Lift nets		Gill nets		Angling			
Saury stick-held dipnet	Other Lift nets	Salmon drift gill net	Other gill nets	Skipjack pole-and-line	Mackerel angling	Squid angling	
1 904	1 156	2 560	3 064	10 470	876	9 497	1
939	337	1 238	1 192	4 222	335	3 736	2
879	470	1 212	1 261	5 362	457	4 849	3
86	349	110	611	886	84	912	4

Beach seine	Boat seine of "patch' type	Boat seine	Large set net	Small set net	Shellfish collecting	Seaweed collecting	
2 166	2 235	3 500	8 365	4 184	481	116	1
108	677	918	2 263	913	123	22	2
126	1 210	1 704	4 925	1 850	196	32	3
1 932	348	878	1 177	1 421	162	62	4

1 Number of Fishing Employee's Households by Types of Fishing Gears Mainly Engaged (Continued)

Type of income sources		Other fishings	"Nori"laver culture	Oyster culture	Pearl culture
Total	1	2 389	785	387	1 326
Exclusively from fishing employees	2	1 026	260	173	440
Mainly from fishing employees	3	1 093	305	95	428
Partly from fishing employees	4	270	220	119	458

2 Number of Fishing Employee's Households by Types of Side Business

Type of income source		Total	Employees for other than fishing			Own account			
			Sub-total	Permanent	Part time	Sub-total	Fishery	Agri-culture	Fish proces-sing
Total	1	72 411	49 539	30 628	18 911	22 872	1 941	12 246	568
Exclusively from fishing employees	2	-	-	-	-	-	-	-	-
Mainly from fishing employees	3	56 623	40 496	23 857	16 639	16 127	1 899	7 939	431
Partly from fishing employees	4	15 788	9 043	6 771	2 272	6 745	42	4 307	137

4 Number of Fishing Employee's Households Engaged in Agriculture

Type of income source		Total	Not engaged in agriculture	Engaged		
				Sub-total	Less than 5 are	5 - 10
Total	1	127 382	103 952	23 430	2 385	2 020
Exclusively from fighing employees	2	54 971	53 932	1 039	942	97
Mainly from fishing employees	3	56 623	41 832	14 791	1 157	1 637
Partly from fishing employees	4	15 788	8 188	7 600	286	286

Mariculture					Inland fishery	
Pearl oyster culture	"Wakame" seaweed culture	Yellowtail culture	Scallop culture	Other culture		
143	208	2 915	221	518	22	1
60	13	1 396	92	195	16	2
53	21	1 290	66	196	5	3
30	174	229	63	127	1	4

3 Number of Fishing Employee's Households by Working Status of Head of Household

business					Engaged in fishing as laborler				
Guide for leisure fishing	Seasonal inn	Others	Total	Not engaged in fishing as laborler	Sub-total	Exclusively engaged	Mainly engaged	Partly engaged	
97	816	7 204	127 382	8 145	119 237	97 595	15 065	6 577	1
-	-	-	54 971	101	54 870	54 870	-	-	2
71	680	5 107	56 623	1 385	55 238	41 108	13 749	381	3
26	136	2 097	15 788	6 659	9 129	1 617	1 316	6 196	4

in agriculture by sizes of arable land					Average arable land area per household(are)	
10 - 30	30 - 50	50 are - 1 Ha.	1 - 3 Ha.	3 Ha. and over		
7 448	4 074	4 354	2 839	310	48	1
-	-	-	-	-	3	2
5 967	2 913	2 339	748	30	33	3
1 481	1 161	2 015	2 091	280	85	4

IV STATISTICS ON FISHERMEN

1 Number of Fishermen by Types of Household

Type of engagement		Total	Fishing operator's household engaged in			
			Sub-total	Coastal fishery	Medium-scale fishery	Large-scale fishery
Total	1	478 148	336 517	323 496	13 019	2
Exclusively engaged in own fishing	2	301 051	301 051	288 768	12 281	2
Engaged in both own fishing and fishing employ						
Mainly engaged in own fishing	3	13 731	13 729	13 407	322	-
Mainly engaged in fishing employ	4	17 035	13 124	12 973	151	-
Exclusively engaged in fishing employ	5	146 331	8 613	8 348	265	-

2 Number of Fishermen by Sex and by Age Groups (Continued)

Type of engagement		Men (Continued)				
		35 - 39	40 - 44	45 - 49	50 - 54	55 - 59
Total	1	39 154	55 598	62 729	50 037	31 231
Exclusively engaged in own fishing	2	17 272	28 411	35 413	31 122	21 026
Engaged in both own fishing and fishing employ						
Mainly engaged in own fishing	3	1 414	2 099	2 424	1 826	1 032
Mainly engaged in fishing employ	4	1 874	2 629	2 847	2 076	1 153
Exclusively engaged in fishing employ	5	18 594	22 459	22 045	15 013	8 020

4 Number of Fishermen by Types of Fishing Gear Mainly Engaged

Type of engagement		Total	Factory ship type			
			Whaling	Trawl	Tuna long line	Salmon fishing
Total	1	478 148	995	1 716	1 124	2 694
Exclusively engaged in own fishing	2	301 051	-	3	-	3
Engaged in both own fishing and fishing employ						
Mainly engaged in own fishing	3	13 731	-	-	-	-
Mainly engaged in fishing employ	4	17 035	52	110	19	219
Exclusively engaged in fishing employ	5	146 331	943	1 603	1 105	2 472

2 Number of Fishermen by Sex and by Age Groups

Fishing employee's household	Total	Men					
		Sub-total	15 - 19 years old	20 - 24	25 - 29	30 - 34	
141 631	478 148	398 052	8 769	22 530	32 667	31 410	1
-	301 051	225 961	4 425	10 458	14 491	13 660	2
2	13 731	13 209	252	698	994	973	3
3 911	17 035	16 684	424	1 118	1 545	1 373	4
137 718	146 331	142 198	3 668	10 256	15 637	15 404	5

3 Number of Fishermen by Types of Fisheries engaged

60 - 64	65 years old and over	Women	Total	Engaged in coastal fishery	Engaged in coastal fishery with boats of 10 tons and over	Engaged in off-shore and distant water fishery	
26 004	37 923	80 096	478 148	361 767	7 596	116 381	1
18 823	30 860	75 090	301 051	293 051	1 064	8 000	2
760	737	522	13 731	11 393	436	2 338	3
930	715	351	17 035	10 594	1 421	6 441	4
5 491	5 611	4 133	146 331	46 729	4 675	99 602	5

Crab fishing	North Pacific Ocean long line & gill net	Coastal whaling	Trawls				
			Distant water trawl	Trawl in East China Sea	Off-shore trawl		
					One boat trawl	Pair trawl	
526	888	241	8 010	4 740	6 452	1 765	1
1	4	11	1	-	239	17	2
-	-	-	-	-	2	-	3
68	68	13	203	32	265	175	4
457	816	217	7 806	4 708	5 946	1 573	5

4 Number of Fishermen by Types of Fishing Gear Mainly Engaged (Continued)

Type of engagement		Trawls		Purse seine		
		Small size trawl	Other trawls	One boat operation	Two boats operation	Other purse seine
Total	1	26 396	2 171	15 940	5 349	3 145
Exclusively engaged in own fishing	2	19 353	1 450	623	167	1 011
Engaged in both own fishing and fishing employ						
Mainly engaged in own fishing	3	981	76	30	6	44
Mainly engaged in fishing employ	4	565	49	710	533	253
Exclusively engaged in fishing employ	5	5 497	596	14 577	4 643	1 837

4 Number of Fishermen by Types of Fishing Gear Mainly Engaged (Continued)

Type of engagement		Angling	Long lines			
		Other anglings	Tuna long line	Salmon long line	Alaska pollack long line	Other long lines
Total	1	44 093	18 033	972	490	13 403
Exclusively engaged in own fishing	2	40 390	543	279	117	9 562
Engaged in both own fishing and fishing employ						
Maibly engaged in own fishing	3	1 699	4	23	9	349
Mainly engaged in fishing employ	4	200	501	83	22	169
Exclusively engaged in fishing employ	5	1 804	16 985	587	342	3 323

4 Number of Fishermen by Types of Fishing Gear Mainly Engaged (Continued)

Type of engagement		Other fisheries				
			"Nori" laver culture	Oyster culture	Pearl culture	Pearl oyster culture
Total	1	22 728	50 881	7 427	5 462	2 464
Exclusively engaged in own fishing	2	18 570	48 037	6 724	3 388	2 148
Engaged in both own fishing and fishing employ						
Mainly engaged in own fishing	3	1 164	718	199	28	75
Mainly engaged in fishing employ	4	337	1 106	46	147	20
Exclusively engaged in fishing employ	5	2 657	1 020	458	1 899	221

Lift nets		Gill nets		Angling			
Saury stick-held dipnet	Other lift net	Salmon drift gill net	Other gill nets	Skipjack pole-and-line	Mackerel angling	Squid angling	
2 581	3 926	3 828	43 619	15 570	1 532	29 202	1
171	2 194	418	36 877	1 721	501	15 545	2
44	82	16	2 500	69	12	1 024	3
235	377	504	894	982	65	1 759	4
2 131	1 273	2 890	3 348	12 798	954	10 874	5

Boat seine	Boat seine of "patch" type	Boat seine	Large set net	Small set net	Shellfish collecting	Seaweed collecting	
3 728	3 473	8 816	12 713	15 055	28 600	22 803	1
844	704	3 784	710	8 560	26 978	21 551	2
19	25	269	19	591	1 008	1 100	3
87	295	747	3 315	1 393	65	35	4
2 778	2 449	4 016	8 669	4 511	549	117	5

Mariculture				Inland fisheries	
"Wakame" seaweed culture	Yellowtail culture	Scallop culture	Other culture		
11 933	10 265	7 167	4 934	298	1
11 042	6 139	6 401	4 006	264	2
657	220	443	222	4	3
17	200	49	47	4	4
217	3 706	274	659	26	5

V STATISTICS ON FISHERY INFRASTRUCTURE

1 Facilities Related to Fishing Industry

1.1 Shipyards

Size of Shipyard (in No.of workers)		No. of shipyards by types of management					No.of workers
		Total	Individual	Company	Fishery Cooperative	Others	
Total	1	3 045	2 421	577	33	14	42 571
1 - 3	2	1 893	1 808	55	27	3	3 366
4 - 9	3	639	490	142	3	4	3 347
10 - 29	4	321	110	204	1	6	4 703
30 workers and over	5	192	13	176	2	1	31 155

1.2 Stores Selling Fishing Materials

Size of Shipyard (in No.of workers)		No. of stores by types of management					No.of workers
		Total	Individual	Company	Fishery Cooperative	Others	
Total	1	5 787	2 074	1 777	1 892	44	36 620
1 - 3	2	3 325	1 674	438	1 193	20	6 297
4 - 9	3	1 558	307	709	529	13	8 558
10 - 29	4	670	69	461	131	9	9 919
30 workers and over	5	234	24	169	39	2	11 846

1.3 Fuel Oil Stations

Size of Shipyard (in No.of workers)		No. of stations by types of management					No.of workers
		Total	Individual	Company	Fishery Cooperative	Others	
Total	1	2 662	567	881	1 094	125	15 893
1 - 3	2	1 419	377	199	777	66	2 866
4 - 9	3	910	174	442	250	44	4 845
10 - 29	4	273	15	193	52	13	3 915
30 workers and over	5	60	1	47	15	2	4 267

No. of facilities			No. of shipyards by types of fishing boat classified by maximum size of boat constructed			
Slip ways	Docks	Upper beams	FRP boat	Wooden boat	Steel boat	
3 328	159	3 458	1 322	1 541	145	1
1 273	33	1 547	646	1 188	3	2
819	37	895	412	258	17	3
614	21	619	196	73	41	4
622	68	397	68	22	84	5

No. of stores by kinds of fishing materials under transaction						
Fishing equipment	Navigation equipment	Fishing nets & fishing gears	Materials for aquaculture	Fish container	Paints	
1 524	2 312	3 842	1 633	1 203	2 515	1
731	1 108	2 441	851	569	1 524	2
499	763	948	509	376	702	3
211	329	319	183	200	216	4
83	112	134	90	58	73	5

Capacity of oil tank			Yearly sale of heavy oil	
Gasoline	Light oil	Heavy oil		
Kℓ	Kℓ	Kℓ	Kℓ	
51 028	93 845	425 855	5 433 970	1
9 139	11 022	85 275	1 221 767	2
21 080	30 960	158 513	1 999 104	3
16 511	40 547	151 006	1 386 977	4
4 298	11 316	31 061	826 122	5

1 Facilities Related to Fishing Industry (Continued)

1.4 Workshops for Engine

Size of workshops (in No. of workers)		No. of workshops by types of management					No. of workers
		Total	Indivisual	Company	Fishery Cooperative	Other	
Total	1	2 600	1 730	820	43	7	17 338
1 - 3	2	1 457	1 313	127	17	-	2 828
4 - 9	3	725	350	354	14	5	3 898
10 - 29	4	323	59	256	7	1	4 376
30 workers and over	5	97	8	83	5	1	6 236

2 Fish Markets

2.1 Number of Fish Markets and its Facilities

Size of market (in annual amount of sale)		No. of fish markets by size of market facilities					
		By size of sale's areas					
		Total	Less than 500 m^2	500 - 1,000	1,000 - 5,000	5,000 - 10,000	10,000 m^2 and over
Total	1	1 111	718	156	180	29	28
Less than 5 million yen	2	4	4	-	-	-	-
5 - 10	3	5	5	-	-	-	-
10 - 50	4	74	71	2	1	-	-
50 - 100	5	104	100	3	1	-	-
100 - 500	6	457	374	61	20	2	-
500 million yen - 1 billion yen	7	160	98	33	29	-	-
1 - 2 billion yen	8	115	42	28	39	3	3
2 - 3 billion yen	9	56	11	12	30	2	1
3 billion yen and over	10	136	13	17	60	22	24

1.5 Fishing Net Makers

No. of fishing net makers by types of management					No. of workers	
Total	Individual	Company	Fishery Cooperative	Others		
416	201	213	1	1	9 674	1
88	75	12	1	-	223	2
132	83	49	-	-	732	3
120	39	81	-	-	1 783	4
76	4	71	-	1	6 936	5

No. of fish markets by size of market facilities									
By size of sale's areas with roofs					Availability of railroad		Availability of parking area		
Less than 100 m^2	100 - 500	500 - 1,000	1,000-5,000	5,000 m^2 and over	Yes	No	Yes	No	
255	507	133	169	47	26	1 085	595	516	1
3	1	-	-	-	-	4	2	2	2
3	2	-	-	-	-	5	3	2	3
46	26	2	-	-	-	74	19	55	4
58	43	2	1	-	-	104	38	66	5
121	278	41	17	-	2	455	230	227	6
18	84	35	23	-	-	160	81	79	7
5	46	23	40	1	-	115	72	43	8
-	15	11	27	3	1	55	41	15	9
1	12	19	61	43	23	113	109	27	10

2 Fish Markets (Continued)

2.2 Numer of Fish Wholesalers (Fish Consignees)

Size of market (in annual amount of sale)		No. of wholesalers by types of management				
		Total	Fishery cooperative	Federation of fishery cooperatives	Company	Indivisual
Total	1	1 221	893	66	238	15
Less than 5 million yen	2	4	4	-	-	-
5 - 10	3	5	4	1	-	-
10 - 50	4	74	66	6	1	1
50 - 100	5	105	99	1	2	3
100 - 500	6	461	394	14	42	7
500 million yen - 1 billion yen	7	166	124	8	33	-
1 - 2 billion yen	8	122	83	11	22	3
2 - 3 billion yen	9	60	43	5	12	-
3 billion yen and over	10	224	76	20	126	1

2.3 Number of Fish Dealers

Size of market (in annual amount of sale)		No. of fish dealers by types of management			
		Total	Individual	Company	Others
Total	1	50 524	40 590	9 303	631
Less than 5 million yen	2	17	16	1	-
5 - 10	3	26	22	4	-
10 - 50	4	840	766	64	10
50 - 100	5	1 473	1 312	138	23
100 - 500	6	11 226	10 085	1 027	114
500 million yen - 1 billion yen	7	6 709	5 884	730	95
1 - 2 billion yen	8	6 029	5 143	805	81
2 - 3 billion yen	9	3 601	2 935	621	45
3 billion yen and over	10	20 603	14 427	5 913	263

3 Fishing Ports

Types of fishing port		Total No. of fishing ports	Length of water brake (m)	No. of		
				Less than 50 m	50 - 100	100 - 200
Total	1	3 629	1 389 094	274	435	719
Type 1	2	2 082	396 678	189	334	531
Type 2	3	499	237 364	17	9	58
Type 3	4	109	122 142	3	1	4
Type 4	5	89	57 991	1	2	6
Commercial Port	6	850	574 919	64	89	120

	No. of wholesalers by no. of workers					
Others	1 - 9 persons	10 - 29	30 - 49	50 - 99	100 persons and over	
9	747	311	57	65	41	1
-	3	1	-	-	-	2
-	5	-	-	-	-	3
-	73	1	-	-	-	4
-	102	2	-	-	-	5
4	394	64	3	-	-	6
1	90	71	4	-	1	7
3	45	69	6	1	1	8
-	12	37	7	4	-	9
1	22	66	37	60	39	10

No. of fish dealers by types of their business						
Agents which ship fish to other area	Agents which sell fish to local retailers	Processors	Retailers		Others	
			With shop	Without shop		
4 276	6 201	8 419	22 280	7 915	1 433	1
5	-	5	4	3	-	2
4	-	1	9	9	3	3
95	61	87	348	207	42	4
161	91	145	678	362	36	5
1 138	761	1 237	4 844	2 959	287	6
622	518	969	2 851	1 554	195	7
611	390	1 130	2 543	1 089	266	8
352	328	824	1 444	555	98	9
1 288	4 052	4 021	9 559	1 177	506	10

fishing ports by length of water brakes						
200 - 300	300 - 400	400 - 500	500 - 1,000	1,000 m and over	Length of quay (m)	
495	325	243	488	244	775 961	1
355	187	108	104	16	85 909	2
65	66	65	168	30	70 790	3
3	8	10	39	40	95 157	4
9	11	9	34	14	30 276	5
63	53	51	143	144	493 829	6

4 Ice Making, Cold Storage and Freezing Plants

Size of plants (In No. of workers)		No. of plants by types of management					
		Total	Individual	Company	Cooperative and association		Others
					Fishery cooperative	Others	
Total	1	6 021	1 824	2 970	1 081	105	41
For commercial use							
Sub-total	2	1 704	77	1 225	362	34	6
1 - 3 persons	3	357	34	140	168	15	-
4 - 9	4	562	28	390	128	11	5
10 - 29	5	535	10	468	51	6	-
30 - 49	6	128	5	112	9	1	1
50 persons and over	7	122	-	115	6	1	-
For own business use							
Sub-total	8	4 317	1 747	1 745	719	71	35
1 - 3 persons	9	1 718	866	440	358	28	26
4 - 9	10	1 274	557	476	215	20	6
10 - 29	11	910	302	512	80	13	3
30 - 49	12	213	18	150	39	6	-
50 persons and over	13	202	4	167	27	4	-

5 Fish Processing Plants

Types of processing		No. of fish processing plants by types of management					
		Total	Indivisual	Company	Cooperative and association		Others
					Fishery cooperative	Others	
Total	1	15 249	10 472	4 371	263	74	69
Canning	2	192	69	114	6	1	2
Fish cakes							
"Kamaboko"	3	2 701	1 816	869	2	10	4
Fish sausage and fish ham	4	28	-	27	-	1	-
Frozen							
Frozen foods	5	314	87	212	15	-	-
"Surimi"	6	57	5	47	5	-	-
Other frozen fishes and shellfishes	7	804	191	490	108	13	2
Salted and dried							
Dried	8	753	646	89	18	-	-
Salted and dried	9	2 893	2 349	519	14	6	5
Boiled and dried	10	2 537	2 287	172	26	12	40
Salted	11	635	377	242	13	3	-
Smoked	12	94	67	26	1	-	-
Smoked & fermented ("Fushi")	13	739	579	150	3	2	5
"Fushi" flake	14	439	261	178	-	-	-
"Tsukudani"	15	265	79	185	1	-	-
Processed laver	16	399	159	227	8	3	2
Ager ager	17	2	1	1	-	-	-
Other processed foods	18	2 143	1 409	689	30	10	5
Fish oil	19	26	14	9	1	-	2
Feed and fertilizer	20	228	76	125	12	13	2

Capacity								
Ice-making capacity per day	Cold storage capacity						Freezing capacity per day	
	Total	For storeing ice	F class	C^1 class	C^2 class	C^3 class		
17 722 t	5 744 702 t	270 123 t	4 674 267 t	353 577 t	238 392 t	208 466 t	49 252 t	1
11 686	4 010 532	152 034	3 475 654	211 141	159 113	164 624	18 486	2
669	156 733	8 118	118 199	18 546	10 892	9 096	1 484	3
2 774	761 576	38 705	635 450	46 112	44 759	35 255	4 530	4
5 031	2 059 270	53 240	1 813 596	89 908	65 132	90 634	6 038	5
1 429	672 543	16 101	600 689	25 525	27 870	18 459	2 317	6
1 783	360 410	35 870	307 720	31 050	10 460	11 180	4 117	7
6 036	1 464 170	118 089	1 198 613	142 436	79 279	43 842	30 766	8
506	181 800	10 368	132 108	29 476	13 283	6 933	3 971	9
2 172	358 997	38 002	286 307	31 526	24 656	16 508	7 516	10
1 637	487 417	34 947	415 695	40 252	20 871	10 599	10 288	11
662	168 588	16 984	140 987	16 649	7 713	3 239	3 712	12
1 059	267 368	17 788	223 516	24 533	12 756	6 563	5 279	13

No. of plants by no. of workers							
Total	1 - 3 workers	4 - 9	10 - 29	30 - 49	50 - 99	100 - 299	300 workers and over	
15 249	4 588	5 605	3 673	677	453	224	29	1
192	49	34	18	11	26	50	4	2
2 701	1 038	977	476	117	56	32	5	3
28	-	2	3	6	4	10	3	4
314	29	50	112	53	48	20	2	5
57	1	3	17	12	20	3	1	6
804	51	166	328	122	108	24	5	7
753	216	255	244	29	8	1	-	8
2 893	899	1 220	707	46	16	5	-	9
2 537	910	1 218	374	22	12	1	-	10
635	114	199	217	49	39	17	-	11
94	18	29	41	4	1	1	-	12
739	222	298	197	12	8	2	-	13
439	196	158	62	11	5	5	2	14
265	46	89	64	32	16	15	3	15
399	63	170	109	33	13	8	3	16
2	-	2	-	-	-	-	-	17
2 143	691	635	617	106	66	27	1	18
26	6	13	4	-	2	1	-	19
228	39	87	83	12	5	2	-	20

VI STATISTICS ON INLAND FISHERY

I Inland Water Aquaculture

I.1 Summary

Species mainly cultured		No. of establishment	No. of fish ponds	Agerage no. of fish ponds per establishment	Total area of fish ponds (Are)	Average area per establishment (Are)
Total	1	15 975	130 681	8.2	1 446 545	90.6
For food						
Sub-total	2	9 729	73 454	7.6	1 101 286	113.2
Trouts	3	1 350	15 219	11.3	57 490	42.6
"Amago" land locked salmon	4	320	3 383	10.6	4 097	12.8
"Yamame" land locked salmon	5	278	2 579	9.3	49 324	177.4
Tilapia	6	97	865	8.9	3 837	39.6
Sweet fish	7	424	4 952	11.7	18 940	44.7
Common carp	8	3 335	17 971	5.4	444 191	133.2
Crucian carp	9	223	657	2.9	169 824	761.5
Eel	10	3 130	25 269	8.1	273 532	87.4
Loach	11	63	213	3.4	1 485	23.6
Fresh water snail	12	30	95	3.2	227	7.6
Soft shell turtle	13	141	1 177	8.3	4 869	34.5
Others	14	338	1 074	3.2	73 470	217.4
For fish seed						
Sub-total	15	379	3 130	8.3	35 001	92.4
Trouts	16	81	1 277	15.8	2 736	33.8
Sweet fish	17	20	287	14.4	15 345	767.3
Common carp	18	196	1 031	5.3	11 878	60.6
Eel	19	37	151	4.1	3 654	98.8
Others	20	45	384	8.5	1 388	30.8
For ornamental fish						
Sub-total	21	5 867	54 097	9.2	310 258	52.9
Fancy carp	22	4 897	37 257	7.6	254 871	52.0
Golden fish	23	842	15 509	18.4	45 480	54.0
Others	24	128	1 331	10.4	9 907	77.4

I.2 Number of Aquaculture Establishments

1.2.1 By Types of Management

Species mainly cultured		Total	Individual	Company	Fishery cooperative	Fishery production cooperative
Total	1	15 975	13 874	998	101	237
For food						
Sub-total	2	9 729	7 949	858	77	205
Trouts	3	1 350	1 018	144	19	58
"Amago" land locked salmon	4	320	242	16	7	10
"Yamame" land locked salmon	5	278	196	26	6	13
Tilapia	6	97	56	34	-	3
Sweet fish	7	424	291	63	21	30
Common carp	8	3 335	2 900	108	16	45
Crucian carp	9	223	156	5	-	1
Eel	10	3 130	2 583	436	5	34
Loach	11	63	60	1	-	-
Fresh water snail	12	30	28	1	-	-
Soft shell turtle	13	141	118	10	-	3
Others	14	338	301	14	3	8
For fish seed						
Sub-total	15	379	282	14	21	14
Trouts	16	81	35	5	10	8
Sweet fish	17	20	11	1	3	2
Common carp	18	196	174	5	5	1
Eel	19	37	35	2	-	-
Others	20	45	27	1	3	3
For ornamental fish						
Sub-total	21	5 867	5 643	126	3	18
Fancy carp	22	4 897	4 720	86	1	15
Golden fish	23	842	825	16	-	-
Others	24	128	98	24	2	3

No. of workers						Average no. of worker per establishment	
By source of worker			By sex				
Total	Family	Employee	Total	Men	Women		
34 780	27 286	7 494	34 780	25 038	9 742	2.2	1
24 119	17 935	6 184	24 119	17 115	7 004	2.5	2
3 387	2 208	1 179	3 387	2 324	1 063	2.5	3
645	504	141	645	431	214	2.0	4
610	439	171	610	425	185	2.2	5
247	109	138	247	194	53	2.5	6
1 481	847	634	1 481	1 017	464	3.5	7
7 565	6 378	1 187	7 565	5 998	1 567	2.3	8
692	600	92	692	641	51	3.1	9
8 110	5 763	2 347	8 110	5 219	2 891	2.6	10
169	92	77	169	155	14	2.7	11
43	41	2	43	30	13	1.4	12
279	214	65	279	206	73	2.0	13
891	740	151	891	475	416	2.6	14
1 014	672	342	1 014	797	217	2.7	15
318	169	149	318	271	47	3.9	16
98	22	76	98	79	19	4.9	17
385	319	66	385	278	107	2.0	18
59	55	4	59	43	16	1.6	19
154	107	47	154	126	28	3.4	20
9 647	8 679	968	9 647	7 126	2 521	1.6	21
7 475	6 864	611	7 475	5 907	1 568	1.5	22
1 695	1 605	90	1 695	974	721	2.0	23
477	210	267	477	245	232	3.7	24

1.2.2 By Types of Culture

Partnership	Governmental Institution	Total	Pond culture		Reservoir culture	Net cage culture	
			With still water	With running water			
659	106	15 975	7 392	5 576	2 621	386	1
572	68	9 729	3 650	4 258	1 449	372	2
86	25	1 350	26	1 308	16	-	3
33	12	320	2	316	2	-	4
29	8	278	3	268	6	1	5
2	2	97	55	38	4	-	6
17	2	424	24	395	4	1	7
253	13	3 335	695	1 354	929	357	8
60	1	223	25	6	190	2	9
68	4	3 130	2 636	444	46	4	10
2	-	63	39	11	13	-	11
1	-	30	11	15	4	-	12
10	-	141	113	16	11	1	13
11	1	338	21	87	224	6	14
14	34	379	178	166	32	3	15
5	18	81	3	77	1	-	16
-	3	20	1	18	1	-	17
3	8	196	116	53	25	2	18
-	-	37	29	6	2	-	19
6	5	45	29	12	3	1	20
73	4	5 867	3 564	1 152	1 140	11	21
71	4	4 897	2 801	1 091	998	7	22
1	-	842	728	48	63	3	23
1	-	128	35	13	79	1	24

I Fresh Water Aquaculture (Continued)

I.3 Number of Aquaculture Households

1.3.1 By Extent of Dependency on Aquaculture

1.3.2 By Type of Side-busines...

Species mainly cultured		Total	Exclusively engaged in culture	Engaged in Jobs other than culture		Total	
				Mainly engaged in culture	Partly engaged in culture		Agriculture
Total	1	13 874	1 241	3 267	9 366	12 633	1 754
For food							
Sub-total	2	7 949	941	2 316	4 692	7 008	1 268
Trouts	3	1 018	120	262	636	898	131
"Amago" land locked salmon	4	242	12	65	165	230	34
"Yamame" land locked salmon	5	196	19	40	137	177	15
Tilapia	6	56	8	5	43	48	1
Sweet fish	7	291	66	137	88	225	52
Common carp	8	2 900	139	428	2 333	2 761	249
Crucian carp	9	156	13	22	121	143	9
Eel	10	2 583	546	1 311	726	2 037	755
Loach	11	60	3	5	52	57	3
Fresh water snail	12	28	-	-	28	28	-
Soft shell turtle	13	118	6	14	98	112	9
Others	14	301	9	27	265	292	10
For fish seed							
Sub-total	15	282	11	41	230	271	23
Trouts	16	35	2	8	25	33	5
Sweet fish	17	11	2	4	5	9	1
Common carp	18	174	5	18	151	169	11
Eel	19	35	1	6	28	34	2
Others	20	27	1	5	21	26	4
For ornamental fish							
Sub-total	21	5 643	289	910	4 444	5 354	463
Fancy carp	22	4 720	217	542	3 961	4 503	250
Golden fish	23	825	59	335	431	766	196
Others	24	98	13	33	52	85	17

I.4 Aquaculture for Food Fish

Species		Number of establishments	Area of culture (Are)	Yearly volume of water used (100 tons)	Annual labor input (Man-days)	Heating facility	
						No. of establishment	Pond area applied (m^2)
Trouts	1	1 700	57 650	40 279 239	680 153	53	10 863
"Amago" land locked salmon	2	465	4 096	7 239 831	118 045	16	1 568
"Yamame" land locked salmon	3	506	63 203	6 884 852	130 830	24	2 749
Tilapia	4	246	6 174	1 941 814	67 419	148	95 929
Sweet fish	5	543	12 437	14 238 219	303 973	83	52 484
Common carp	6	4 178	468 694	22 935 448	883 606	82	18 578
Crucian carp	7	432	195 569	386 185	52 895	10	498
Eel	8	3 257	261 184	20 015 653	2 914 550	2 248	3 554 000
Loach	9	93	2 787	234 146	12 407	7	529
Fresh water snail	10	50	753	55 563	2 552	1	600
Soft shell turtle	11	165	4 635	155 292	47 306	102	24 711

Mainly engaged in culture			Partly engaged in culture				
Own account business related to fish culture	Other own account business	Employee	Agriculture	Own account business related to fish culture	Other own account business	Employee	
239	394	880	3 853	227	2 007	3 279	1
194	290	564	2 088	174	1 128	1 302	2
63	21	47	214	59	166	197	3
6	15	10	53	6	41	65	4
6	10	9	62	4	25	46	5
1	-	3	21	-	12	10	6
18	38	29	34	5	38	11	7
46	55	78	1 186	67	467	613	8
1	2	10	58	4	26	33	9
47	142	367	266	20	269	171	10
-	1	1	32	1	5	14	11
-	-	-	18	-	2	8	12
3	2	-	48	2	23	25	13
3	4	10	96	6	54	109	14
1	10	7	147	1	35	47	15
-	2	1	5	-	8	12	16
-	2	1	1	-	4	-	17
1	3	3	111	1	14	25	18
-	3	1	17	-	6	5	19
-	-	1	13	-	3	5	20
44	94	309	1 618	52	844	1 930	21
37	71	184	1 397	30	759	1 775	22
6	15	118	200	17	71	143	23
1	8	7	21	5	14	12	24

Total yield (kg)	Total sale (10^4 yen)	Major expenditures for (10^4 yen)				
		Fish seeds	Feed	Salary and Wage	Fuel and pesticide	
17 238 437	1 180 800	154 909	492 057	172 585	63 483	1
770 594	113 300	20 140	33 870	17 014	8 905	2
837 778	109 234	18 920	33 358	18 752	6 592	3
628 346	64 767	15 771	20 878	16 077	10 385	4
6 534 615	954 387	237 458	235 467	99 520	126 366	5
27 607 056	1 422 551	204 187	685 382	129 173	54 187	6
1 504 190	53 298	9 428	18 638	13 045	2 237	7
30 575 058	6 096 178	1 616 501	1 831 658	435 776	860 863	8
33 643	5 999	1 959	1 407	710	444	9
10 095	1 188	173	134	207	61	10
192 126	48 065	9 782	13 929	7 807	3 415	11

2 Lake Fishery

2.1 Number of Establishment by Types of Fishing Gear mainly employed

Size of management		Total	Net fisheries						
			Trawl	Gill net	Lift net	Beach seine & boat seine	Set net	Cast net	Other nets
Total	1	6 842	392	1 406	174	508	1 824	593	739
Without boat	2	575	1	43	81	45	37	112	157
With non-powered boat	3	1 192	4	203	37	10	202	209	216
With powered boat									
With out-board powered boat	4	2 435	8	682	18	52	632	238	279
Less than 1 gross ton	5	308	24	71	1	6	52	11	16
1 - 3	6	1 263	180	281	18	159	222	23	53
3 - 5	7	582	147	94	13	166	64	-	15
5 gross tons and over	8	174	28	32	6	70	15	-	3
Fish culture	9	240	-	-	-	-	-	-	-
Pearl culture	10	71	-	-	-	-	-	-	-
Other culture	11	2	-	-	-	-	-	-	-

2.2 Number of Establishments by Number of Working Days

Size of management		Total	Less than 29 days	30 - 89	90 - 149	150 - 199	200 - 249	250 days and over
Total	1	6 842	3	1 728	1 678	1 179	946	1 308
Without boat	2	575	1	382	132	30	25	5
With non-powered boat	3	1 192	-	453	404	190	99	46
With powered boat								
With out-board powered boat	4	2 435	1	627	700	485	291	331
Less than 1 gross ton	5	308	-	49	80	61	70	48
1 - 3	6	1 263	-	167	272	252	242	330
3 - 5	7	582	-	29	50	107	123	273
5 gross tons and over	8	174	-	4	7	23	45	95
Fish culture	9	240	-	12	22	28	36	142
Pearl culture	10	71	1	4	10	3	15	38
Other culture	11	2	-	1	1	-	-	-

Angling	Long line	Collecting shellfish & seaweed	Other fisheries		Culture				
			Traps	Others	Fish culture		Pearl culture	Others	
					Cage	Others			
212	159	573	293	256	231	9	71	2	1
31	2	31	7	28	-	-	-	-	2
65	52	10	92	92	-	-	-	-	3
112	60	183	83	88	-	-	-	-	4
1	25	77	8	16	-	-	-	-	5
3	17	231	46	30	-	-	-	-	6
-	2	34	45	2	-	-	-	-	7
-	1	7	12	-	-	-	-	-	8
-	-	-	-	-	231	9	-	-	9
-	-	-	-	-	-	-	71	-	10
-	-	-	-	-	-	-	-	2	11

2.3 Number of Fishing Boats held

2.4 Number of Fishermen

Total	Non-powered boat	Out-board powered boat	In-board powered boat	Total	Family members	Employees	
9 054	2 304	3 840	2 910	12 947	12 160	787	1
-	-	-	-	709	707	2	2
1 228	1 228	-	-	1 797	1 717	80	3
3 146	468	2 678	-	4 082	4 002	80	4
446	57	73	316	571	561	10	5
1 946	218	355	1 373	2 454	2 408	46	6
1 051	128	225	698	1 734	1 520	214	7
487	52	66	369	635	572	63	8
538	82	321	135	603	561	42	9
210	71	121	18	357	107	250	10
2	-	1	1	5	5	-	11

3 Fisheries Cooperatives for Inland Fishery

3.1 Number of Cooperatives by Qualification of Members in Terms of No. of Fishing Days

3.2 Number of Cooperatives as to whether it is invested or not

Type of cooperative		Total	30 - 59 days	60 - 89	90 days and over	Total	Invested	Non-Invested
Total	1	1 112	763	75	215	1 112	916	196
Unit cooperative Sub-total	2	1 053	763	75	215	1 053	868	185
River cooperative	3	800	682	57	1	800	625	175
Lake cooperative	4	149	51	11	87	149	140	9
Aquaculture cooperative	5	104	30	7	67	104	103	1
Federation of cooperatives	6	59	-	-	-	59	48	11

3.4 Number of Members of Cooperatives

3.5 Number of Fish Seeds released

(a) Number of Fish Seeds Released by Species

Type of cooperative		Total	Regular	Associate	Total	Salmon & trouts		Sweet fish
						Anadromous	Land locked	
Total	1	658 533	546 595	111 938	1 560 870.3	111 824	130 103.5	203 891
Unit cooperative Sub-total	2	657 560	545 624	111 936	1 546 237.3	107 150	129 609.5	197 800
River cooperative	3	621 684	514 546	107 138	1 211 121.0	96 810	127 616.5	197 642
Lake cooperative	4	26 074	21 613	4 461	308 380.0	20	1 783.0	84
Aquaculture cooperative	5	9 802	9 465	337	26 736.3	10 320	210.0	74
Federation cooperative	6	973	971	2	14 633.0	5 674	494.0	6 091

3.3 Number of Cooperatives by Amount Capital invested

Total	Less than 500 thousand yen	500 thousand - 1 million yen	1 - 5	5 - 10	10 - 30	3 million yen and over	
916	268	110	233	104	119	82	1
868	258	106	215	101	113	75	2
625	200	80	168	69	72	36	3
140	41	13	24	11	22	29	4
103	17	13	23	21	19	10	5
48	10	4	18	3	6	7	6

(b) Number of Fertile Eggs Released

Unit : 1000 fish

Common carp	Crucian carp	Eel	Others	Total (1,000 eggs)	
64 164.5	73 558	15 968.3	960 361	86 435 854	1
62 951.5	73 225	15 365.3	960 136	85 922 854	2
26 052.5	15 228	13 070.0	734 702	591 939	3
23 837.0	57 967	1 180.0	223 509	85 286 710	4
13 062.0	30	1 115.3	1 925	44 205	5
1 213.0	333	603.0	225	513 000	6

V Appendix

Appendix I. Fishery Production of Japan

(1) Fishery Production of Japan in Comparison with those of Other Countries

Total Japanese fishery production in 1978 was 10,730 thousand metric tons. Of the total production, that from marine fishery including mariculture was 98% of the total, while that from inland fishery including aquaculture was only 2% of the total.

Japanese fishery production increased continuously as shown in Fig. 1 until 1974 due mainly to the expansion of her distant water fishery. After 1975, however, the production of the distant water fishery decreased due to international agreements and 200 miles fishing zones declared by countries concerned, which made it difficult to maintain the same level of the production. Nevertheless, Japanese fishery has maintained the same level of fishery production, i.e. slightly over 10 million metric tons, as achived before 1974, as the catch of her off-shore fishery operated in the adjacent waters of Japan remarkably increased.

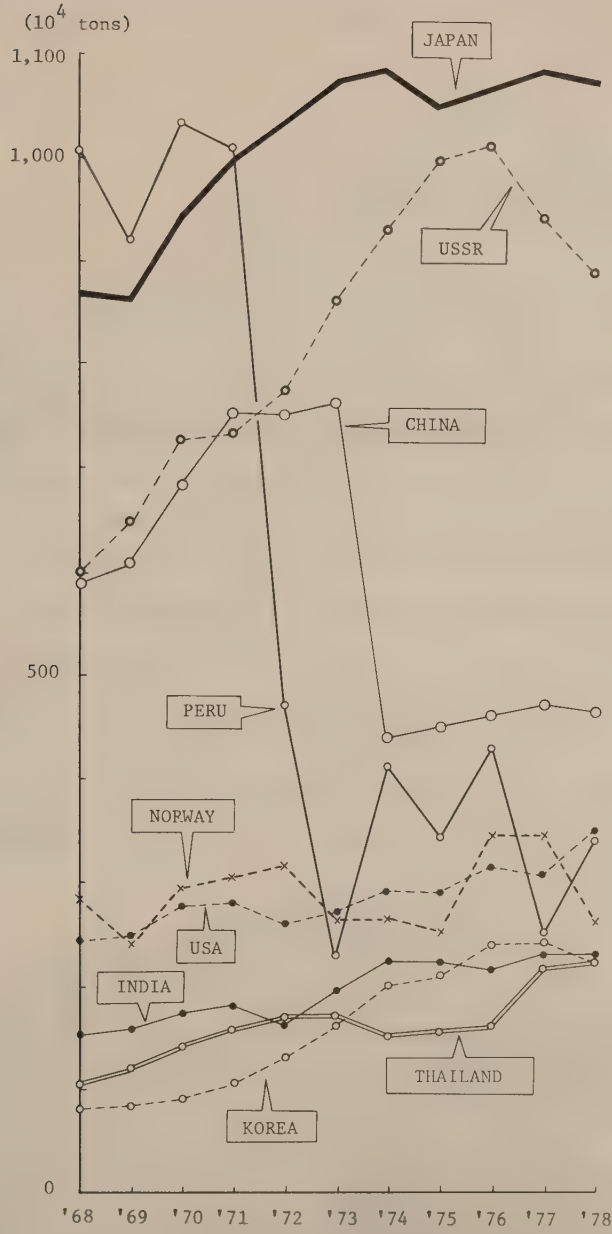
World fishery production in 1978 was 73.5 million metric tons, of which 15% was produced by Japan. The recent trend of fishery production for major fish producing countries is seen in Fig. 1.

(2) Japanese Fishery Production by Sectors

Japanese fishery production of 1978 is composed of 90% from marine fisheries, 8% from mariculture and 2% from inland fishery including fresh water aquaculture as seen in Fig. 2.

As for marine fishery, the production of off-shore fishery occupies 46% of the total, which was the largest share among all sectors. This is followed by the distant water fishery (25%) and the coastal fishery (20%).

Fig. 1 Catch by Major Countries



Data source : "FAO.Year book of Fishery Statistic" 1978

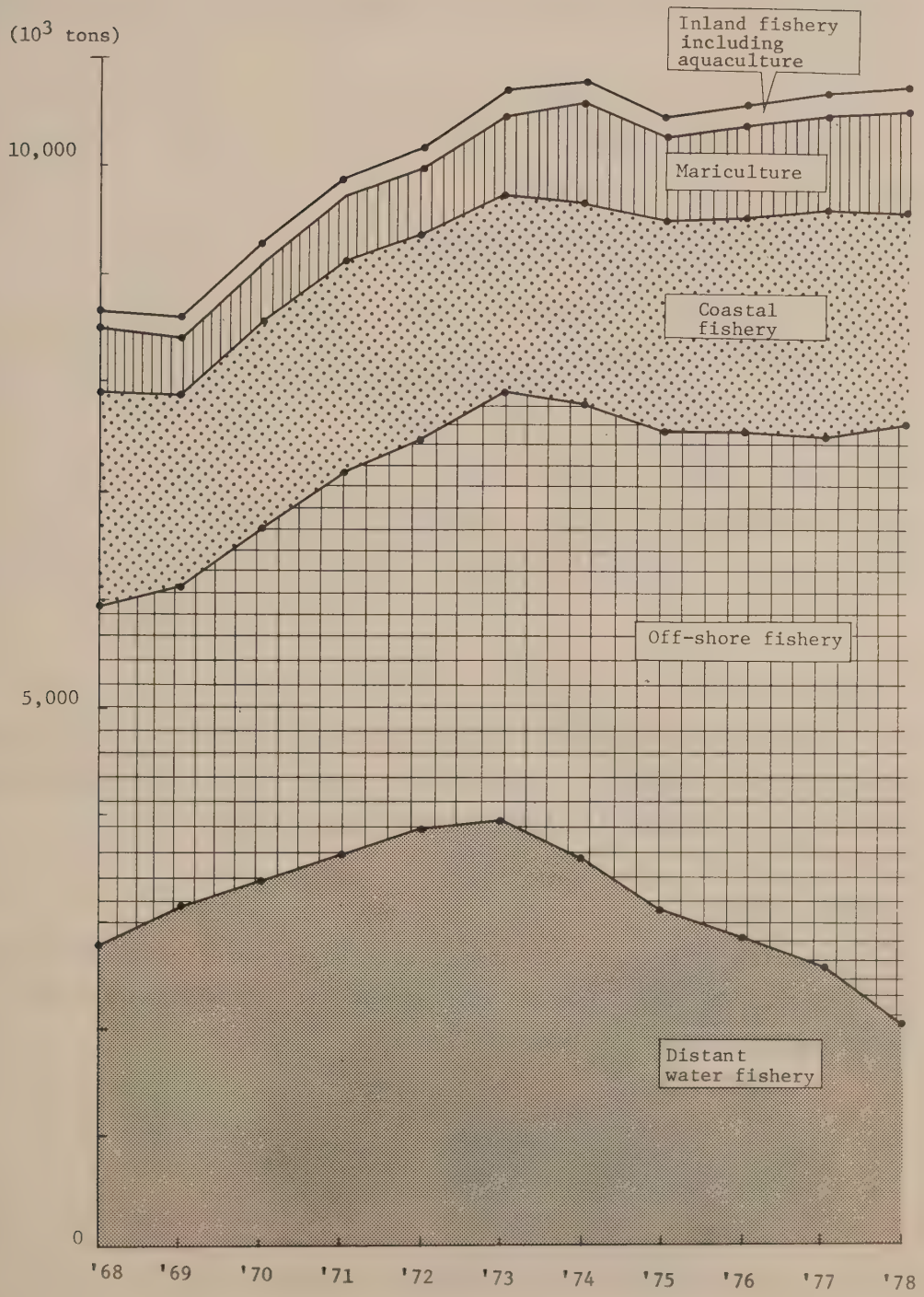
(Note) Only 9 major countries which the total catch were over 2 million metric tons in 1978 are shown in this Fig.

For the reason as mentioned in 1 above, the production of the distant water fishery has greatly decrease since 1974. However, the production of the off-shore fishery has steadily increased. This was due to the increased catch of sardine and mackerel which were caught in the adjacent waters of Japan.

(3) Japanese Fishery Production by Species

Special features of Japanese catch by species are as follows. The catch of Alaska pollack rapidly increased until around 1973, when the catch of this species reached record of some 3 million metric tons. Since then the catch started to decline and that in 1978 dropped to 1.9 million metric tons. This was due to that the regulation was strengthened in the Northern sea area according to the establishment of the 200 miles fishing zones declared by the countries concerned. Contrary to the decreased catch of Alaska polack, the catches of sardine and mackerel have increased from year to year. This is due to the recovery of the abundance of these resources. Meanwhile, the catch of tunas, saury and squid and cuttlefish are maintained at a nearly same level, although the annual catch of saury is flactuatted from year to year as seen in Fig. 3. The catch of skipjack shows a tendency of increase. This is due to an exploration of new distant water fishing grounds.

Fig. 2 Japan's Catch in Quantity by Fishery Sectors (Exclude whaling)



(Note) Fishery sectors in the marine fishery are defined as follows:

1. Distant water fishery

The following types of fisheries are categorized into the distant water fishery.

(1) Factory ship type trawls
(2) Distant water trawl
(3) Trawl, in East China Sea
(4) Factory ship type salmon fishery
(5) Factory ship type crab fishery
(6) Northern Pacific Ocean crab fishery
(7) Northern Ocean long line and gill net
(8) Distant water skip jack pole-and-line
(9) Factory ship type tuna long line
(10) Distant water tuna long line
(11) Seabream fishery in the waters near New Zealand
(12) Long line fishery in Atlantic Ocean and crab fishery in the waters west Kamchatka

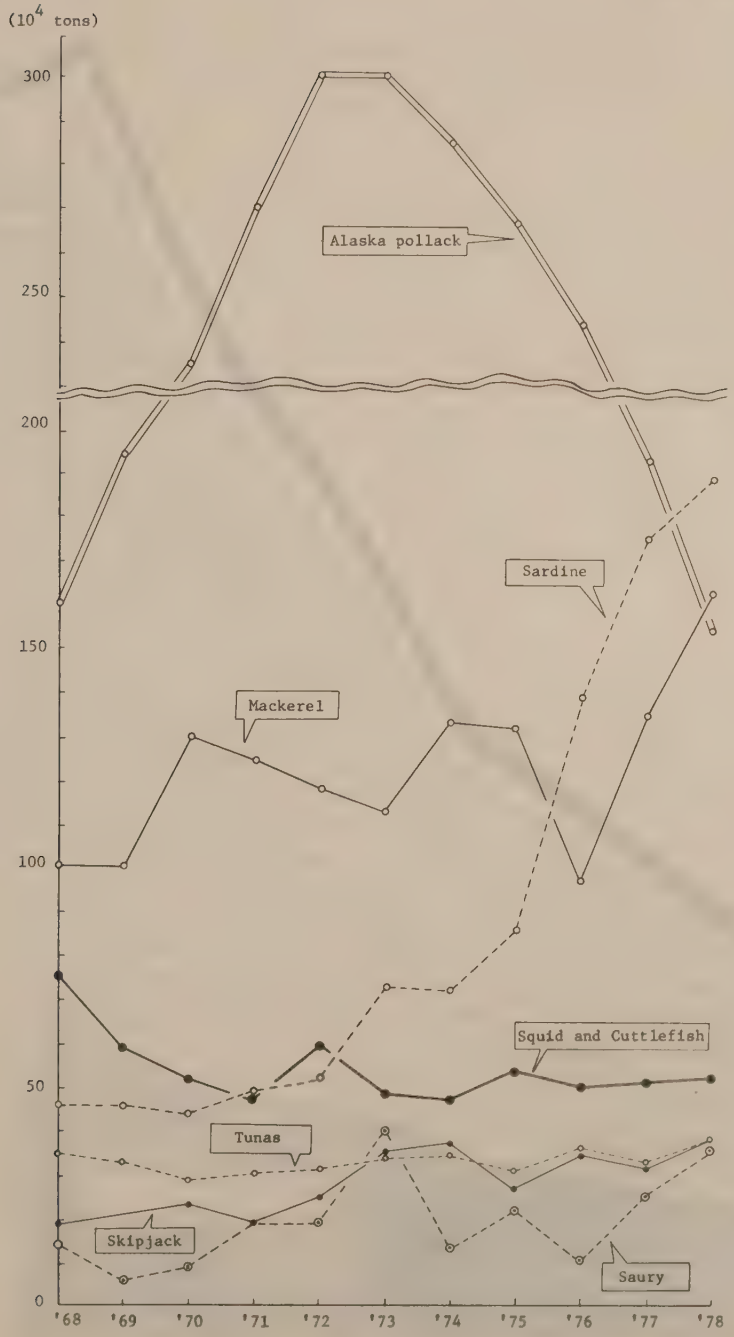
2. Off-shore fishery

The fishings, those are operated with powered boats of over 10 gross tons except for the fisheries of the distant water and set net and beach seine fisheries, are classified into the off-shore fishery.

3. Coastal fishery

The fisheries without fishing boat, with non-powered boat and powered boat of less than 10 gross tons as well as the set net and beach seine fisheries are classified into the coastal fishery.

Fig. 3 Japan's Catch by Major Species



(Note) In the above Fig. 7 Major Species, each catch of which in 1978 was more than 350 thousand metric tons, were shown.

Fig. 4 Japan's Catch in Value by Fishery Sectors (Include whaling)

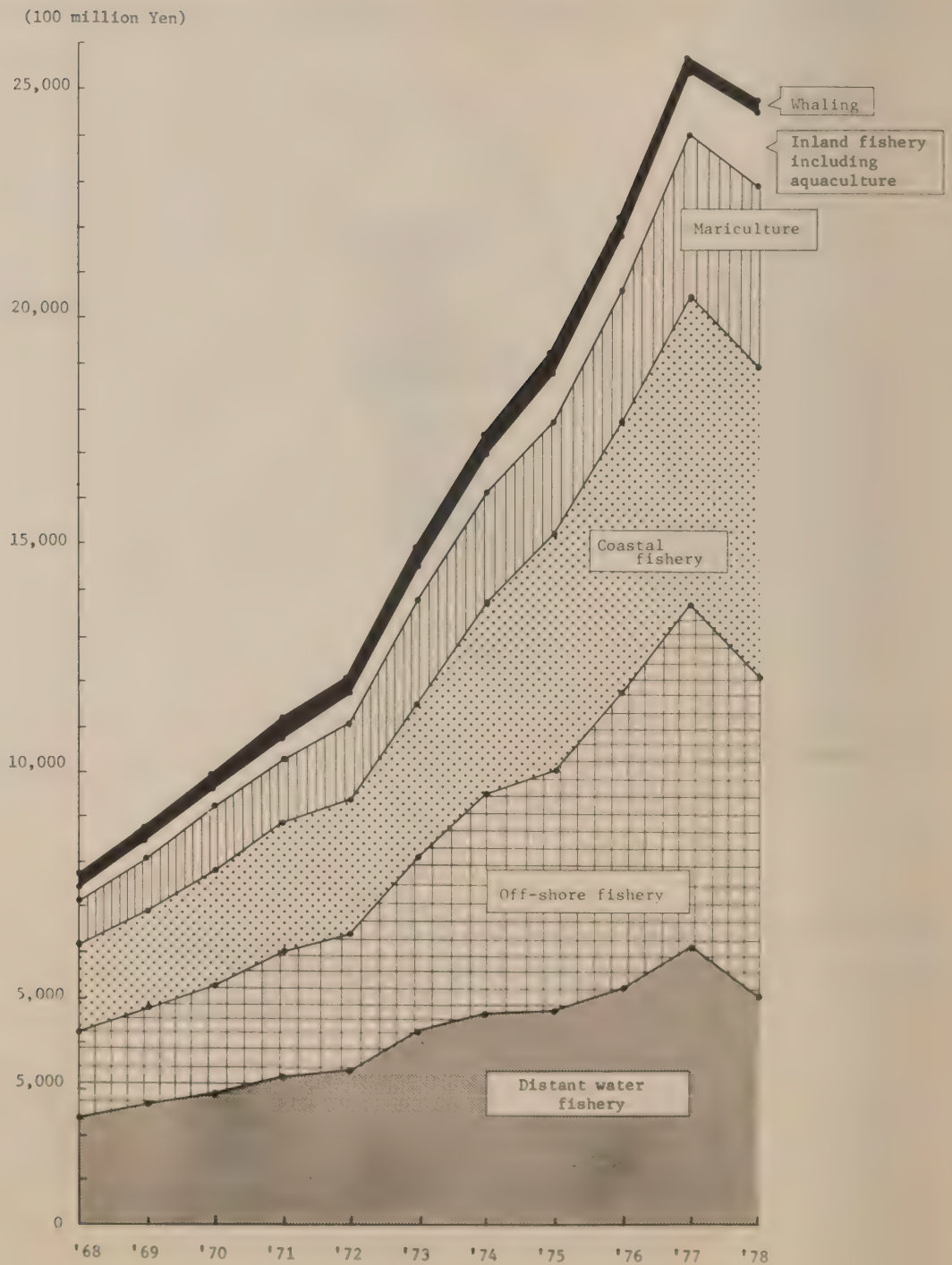


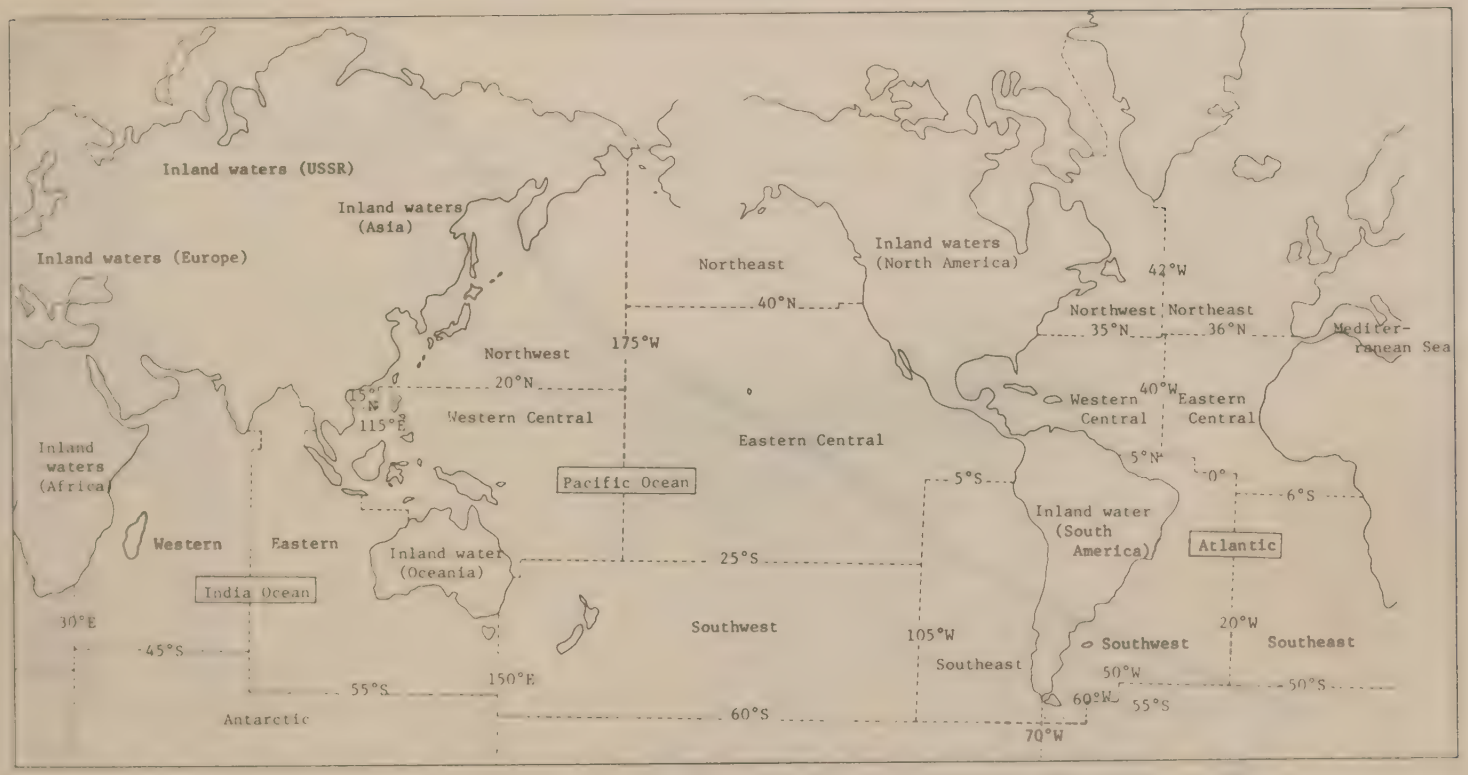
Table. 1 Catch of Japan by Fishing Areas, 1978 Major Fishing Areas in World

Unit : 1000 metric tons

Species	Grand Total	Marine																			Inland waters
		Total	Atlantic								Indian Ocean				Pacific Ocean							
			Sub-total	North-west	North-east	Western Central	Eastern Central	Mediter-ranean Sea	South-west	South-east	Sub-Total	Western	Eastern	Antarc-tic	Sub-total	North-west	North-east	Western Central	Eastern Central	South-west	South-east	
1973	10 748	10 569	313	48	4	3	113	0	1	143	44	26	18	-	10 212	8 906	964	164	95	74	10	179
1978	10 823	10 596	180	19	1	6	63	0	21	71	67	24	17	-	10 349	9 022	766	318	99	82	62	227
Fish Total	8 589	8 429	127	8	1	3	39	0	14	62	38	21	17	-	8 264	6 972	760	318	99	53	62	159
of which Tunas	355	355	28	4	1	3	6	0	0	14	25	11	14	-	302	105	0	102	79	4	11	-
Marlin, Sword fish	46	46	1	0	0	0	0	0	0	1	4	3	1	-	41	20	0	8	11	1	2	-
Skipjack	369	369	15	-	-	-	15	-	-	-	1	0	1	-	354	152	0	198	3	0	0	-
Sardine	1 637	1 637	-	-	-	-	-	-	-	-	-	-	-	-	1 637	1 637	-	-	-	-	-	-
Mackerel	1 626	1 626	0	0	-	-	0	-	0	-	0	0	-	-	1 626	1 626	-	-	-	0	0	-
Saury	360	360	-	-	-	-	-	-	-	-	-	-	-	-	360	360	-	-	-	-	-	-
Flounders	307	307	0	0	-	-	0	-	0	-	0	0	-	-	306	186	120	-	-	0	-	-
Alaska pollack	1 546	1 546	-	-	-	-	-	-	-	-	-	-	-	-	1 546	990	556	-	-	-	-	-
Crustacean, Molluscs other than shellfish	894	879	54	11	-	3	24	-	7	9	29	3	0	26	797	764	3	-	0	29	0	15
Squid	257	257	15	8	-	-	0	-	7	0	0	0	0	-	242	216	-	-	-	26	-	-
Aquatic mammals	2	2	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-
Shellfish	700	648	-	-	-	-	-	-	-	-	-	-	-	-	648	646	2	-	-	-	-	52
Seaweeds	639	639	-	-	-	-	-	-	-	-	-	-	-	-	638	638	-	-	-	-	-	0

Note : In this table, there might be some discrepancies among grand totals, totals, sub-totals and each figure by areas, because of their roundings.

Major Fishing Areas in World



Appendix 2 Fishery Statistical Surveys in Japan (1980)

Surveys Undertaken			Survey Objects	Survey Frequency	Survey Method
1. Survey on Fishery Structure	Fishery Census	Marine Fishery Survey	Fishing establishments and fishing employee's households	Every five years	Interview
		Inland Fishery Survey	Freshwater fishing establishments	"	"
		Fishery District Survey	Fishery district	"	Interview and use of documents available
	Inter-Fishery Census	Survey on Fishing establishment	Fishing establishment	Every year except for year of fishery census (As of January 1st)	" "
		Survey on Employment Status for Members of Fishing Household	Fishing households in sample enumeration districts	Every year except for year of fishery census (As of November 1st)	" "
2. Survey on Fishery Production	Survey on Marine Fishery		Fish wholesalers, fishing establishments, etc.	Every month	Interview, report by enumerator and use of documents available
	Survey on Mariculture		Fisheries cooperatives fishing establishment, etc.	"	" "
	Survey on Inland Fishery	Survey on Inland Fishery	Freshwater fisheries cooperatives	1 ~ 4 times a year	" "
		Survey on Freshwater Aquaculture	Freshwater aquaculturiests, etc.	"	" "
3. Survey on Fishery Economy	Survey on Fishery Economy	Survey on Fishing Operator's Household	Sample fishing operator's households (Engaged in fishing with non-powered boat or with powered boat of less than 10 gross tons)	Every month (Tabulation is done one time a year)	Book-keeping and interview
		Survey on Fishing Enterprise	Sample fishing enterprises (Engaged in fishing with powered boat of 10 gross tons and over)	"	Book-keeping, interview and use of documents available
		Survey on Large Size Fishing Company	Fishing companies with capital of 100 million yen and over	One time a year after the company's settlement of accounts	Report in mail
	Survey on Fixed Assets for Fishery	Survey on Price for Fixed Assets	Makers and stores to sell	Every year as of January 1st	Interview
		Survey on Economic Life for Fixed Assets	Fishing operator's households and fishing enterprises	"	"
4. Survey on Fishery Product's Marketing	Fishery Products' Marketing Survey at Fish Landing Centers	Survey on Catch Landed and Fish Price	Sample fish markets	Every month	Report by enumerator and use of documents available
		Survey on Disposition of Catch Landed	Sample fish markets, wholesalers and deale.s	"	Interview and use of documents available
		Survey on Fishery Products shipped to Consuming Area	Sample fish markets, wholesalers and transporters	"	" "
		Survey on Fish Price for Fishery Products Shipped	Sample fish markets, wholesalers	"	" "
		Supplemental Survey on Fish Price at Additional Fish Landing Centers	" "	One time a year	" "
	Fishery Product's Marketing Survey in Consuming Areas		Fish markets, wholesalers, dealers and retailers	Every month	Report by enumerator and use of documents available
	Survey on Fishery Products Stored in Cold Storages		Cold storages	Every month	Report in mail and interview
	Survey on Fish Processing Plants		Fish processors and their associations	Every year in January	Interview and use of documents available
	Survey on Formation of Fish Price by Distribution Stages		Fish retailers, dealers and wholeselers in consuming areas, fish dealers, transporters and wholesalers in fish landing center	One time a year	Report by survey objects and interview

(Note) Fishery statistical surveys shown above are those which are currently undertaken by the statistical organization of the Ministry of Agriculture, Forestry and Fisheries.

QUESTIONNAIRES USED IN THE SIXTH FISHERY CENSUS

The Sixth Fishery Census

Marine Fishery Survey

QUESTIONNAIRE ON FISHING ESTABLISHMENTS

Date of survey : Nov. 1st, 1978

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Ministry of Agriculture, Forestry and Fisheries

Designated Statistics No. 67	Coastal region	Prefecture	Municipality	Fishery district	Enumeration district	Serial no. of survey object	Type of management
Name							
Code no.							

Name of head of household or establishment

Name of enumerator

Name of company

Address of head office

To be entered by supervisor

Size of management code No.

[I] Fishery management

1 Types of fisheries engaged during the past one year and their types of fishery regulation systems

		Code No.	Types of Fisheries: All types of fishery engaged	The one which sale was largest	The one which sale was second	Types of fishery regulation (only one applicable): Fishery under Minister's licences	Fishery under Prefectural Governor's licences	Fishery under Minister's certificate	Fishery under fishing right	Free fishery	Others
Factory ships	Whaling	101	1	2	3	1	2	3	4	5	6
	Trawls	102	1	2	3	1	2	3	4	5	6
	Tuna long line	103	1	2	3	1	2	3	4	5	6
	Salmon fishing	104	1	2	3	1	2	3	4	5	6
	Crab fishing	105	1	2	3	1	2	3	4	5	6
Set net and gill net		106	1	2	3	1	2	3	4	5	6
Coastal whaling		107	1	2	3	1	2	3	4	5	6
Trawls	Distant water trawl	108	1	2	3	1	2	3	4	5	6
	East China Sea trawl	109	1	2	3	1	2	3	4	5	6
	Offshore trawl: One boat operation	110	1	2	3	1	2	3	4	5	6
	Offshore trawl: Two boat operation	111	1	2	3	1	2	3	4	5	6
	Small trawl										
	Otter trawl										
Purse seines	One boat operation										
	Two boat operation	115	1	2	3	1	2	3	4	5	6
	Other surrounding nets	116	1	2	3	1	2	3	4	5	6
Lift nets	Saury stick-held dip net	117	1	2	3	1	2	3	4	5	6
	Other lift nets	118	1	2	3	1	2	3	4	5	6
Gill nets	Salmon drift gill net	119	1	2	3	1	2	3	4	5	6
	Other gill nets	120	1	2	3	1	2	3	4	5	6
Pole-and-line, etc.	Skipjack pole-and-line	121	1	2	3	1	2	3	4	5	6
	Mackerel angling	122	1	2	3	1	2	3	4	5	6
	Squid angling	123	1	2	3	1	2	3	4	5	6
	Other anglings	124	1	2	3	1	2	3	4	5	6
Long line	Tuna long line	125	1	2	3	1	2	3	4	5	6
	Salmon long line	126	1	2	3	1	2	3	4	5	6
	Alaska pollack long line	127	1	2	3	1	2	3	4	5	6
	Other long line	128	1	2	3	1	2	3	4	5	6
Beach seine		129	1	2	3	1	2	3	4	5	6
Boat seine		131	1	2	3	1	2	3	4	5	6
Large set net											
Small set net											
Shellfish collecting		134	1	2	3	1	2	3	4	5	6
Seaweed collecting		135	1	2	3	1	2	3	4	5	6
Other fisheries											
Mariculture (including seed culture)	"Nori" laver culture	137	1	2	3	1	2	3	4	5	6
	Other laver culture	138	1	2	3	1	2	3	4	5	6
	Pearl culture	139	1	2	3	1	2	3	4	5	6
	Pearl oyster culture	140	1	2	3	1	2	3	4	5	6
	"Wakame" seaweed culture	141	1	2	3	1	2	3	4	5	6
	Yellow tail culture	142	1	2	3	1	2	3	4	5	6
	Scalop culture	143	1	2	3	1	2	3	4	5	6
	Other cultures	144	1	2	3	1	2	3	4	5	6
Inland fishery and culture		145	1	2	3	1	2	3	4	5	6

2 Fishing Areas Operated from Japan's coastal line

			All fishing areas operated	One fishing area which sale was largest
Within 12 nautical miles		201	1	2
12-200 nautical miles		202	1	2
Beyond 200 nautical miles	Within 200 nautical miles of foreign countries	203	1	2

3 Fishing boats

(1) Fishing boats used during the past one year

		used
Non-powered boat	205	1
Out-board powered boat	206	1
In-board powered boat	207	1

(2) Number of fishing boat held as of Nov. 1 out of those used during the past one year.

a. Non-powered boat

Wooden boat	208
FRP boat	209

b. Out-board powered boat

Wooden boat	210
FRP boat	211

c. Total tonnage of in-board powered boats

	212

Details of other cultures

Enter name of culture species under culture, e.g. "shrimp" "puffer" "eel", etc.

Name of species for culture

4 Fishermen engaged as of Nov. 1st

(1) Number of fishermen engaged at sea

(persons)

Grand total			301
By sources: Family member			302
By sources: Employee	Total		303
	Same municipality		304
	Same prefecture		305
	Other prefecture		306
By sex and age: Male	Total		307
	15-29 years old		308
	30-49 years old		309
	50-59 years old		310
	60 years old and over		311
Female			312

(2) Number of fishermen not engaged at sea but worked on land only.

Total	313
Family member	314
Employee	315

5 Number of fishermen engaged when the number was largest at sea during the past one year

(persons)

Total	
Family member	317
Employee	318

6 Total number of fishing days engaged during the past one year

(days)

Number of days engaged in fishing	319
of the above, number of days at sea	320

7 Amount of catch sold during the past one year

(ten thousand yen)

Total amount of sale	321
of which, the sale of aquaculture	322

8 Mariculture

(1) "Nori" laver culture

Area of under culture (m²) 401

Give the name of local unit for measuring area (e.g. Ken or Saku)

No. of facilities

terms of the above unit

Convert the area from the above local unit into m² (m²) 403

(2) Oyster culture

a. Raft hanging method or simple hanging method

Number of rafts

Average area per raft (m²) 405

b. Long line method

Length of main rope (m) 406

c. Stick method or sowing method

Number of stakes (m²)

(3) Pearl culture

No. of rafts (unit) 408

(4) Pearl oyster culture

No. of rafts (unit) 409

(5) "Wakame" seaweed culture

a. Length of main rope (m) 411

b. Length of branch (m) 412

(6) Yellowtail culture

Area under culture (m²) 413

(7) Scallop culture

No. of scallops cultured

a. Less than one year old (thousand) 414

b. Between one year and two years old (thousand) 415

(thousand)

[II] Company

1 Distinction between head office, and branch office and type of company

Distinction between head office or branch office	Type of company
Head office	1
Branch office	2

(Complete below only for head office)

2 Capital invested (ten thousand yen) 451

3 Type of business

4 Number of employees (Person)

Total	453
Regular	454
Casual	455

[III] Joint management

1 Year of establishment

Before 1911	1912-1926	1927-1944	1945-
460	0	0	0

Exact year 461

2 Capital invested (ten thousand yen) 462

3 No. of investors 463

4 Ownership of fishing boats and fishing nets

	Jointly	Bringing	Borrowing	Others

Profit

Profit	Sharing	Method of sharing
		According to the no. of shares owned

[IV] Fishing Operator's Household

1 Household and household members

(1) Household members and employment status of each members of 15 years old and over

Name	Code no.	Full age as of Nov. 1st 1978	Sex: Male	Sex: Female	Head of household	Persons who graduated from junior high school or above in March of this year	Type of jobs engaged during the past one year: Own fishery (including works on land)	Own agriculture	Other own business (limiting to those for which yearly sale exceeded 70,000 yen): Fish processing	Guide for leisure fishing	Seasonal inn	Others	Employed as fishing labourer (include works on land)	Employed as labourer other than fishery: Permanent	Casual	Type of job mainly engaged during the past one year (Give a code no. under item's 7 to 15)	Only for person who engaged in both fishery and other jobs: Mainly own fishery	Mainly other job	Only for person who engaged in own fishery (For person with o mark for item 7): Worked at sea: No. of working days at sea	Of which, a person whose working days was the longest	Type of fishery mainly engaged (Give its code no.)	o mark when the size of boat was more than 10 tons	Only for person who started to engage in fishing during the past one year: Person newly engaged in own fishery	Type of job engaged in the previous year: Employed as fishing labourer	Others	For person with mark o for 1 of 23, give the type of fishery in code no.	Person who worked only on land for fishery	For person who was employed as fishing labourer (Those with mark o for 13): Worked at sea: No. of working days at sea	Type of fishery mainly engaged (give its code no.)	o mark when the size of boat was more than 10 tons	Person who worked only on land	Person who never engaged in any job in the past	For person engaged in job other than fishery in the previous year: Type of job mainly engaged: Agriculture and forestry	Mining and construction	Manufacturing	Wholesale or retail trade	Others	Residence at the time of the work	Persons who had no job in the previous
1	2	3	4		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			23	24	25	26	27	28	29	30	31								
	501		1	2	1	1	1	2	3	4	5	6	7	8	9		1																							
	502		1	2	1	1	1	2	3	4	5	6	7	8	9		1		1		1																		
	503		1	2	1	1	1	2	3	4	5	6	7	8	9		1		1																				
	504		1	2	1	1	1	2	3	4	5	6	7	8	9		1				1	1	1																
	505		1	2	1	1	1	2	3	4	5	6	7	8	9		1		1																				
	506		1	2	1	1	1	2	3	4	5	6	7	8	9		1		1		1																		
	507		1	2	1	1	1	2	3	4	5	6	7	8	9		1		1		1																		
	508		1	2	1	1	1	2	3	4	5	6	7	8	9		1		1		1																		
	509		1	2	1	1	1	2	3	4	5	6	7	8	9		1		1		1																		
	510		1	2	1	1	1	2	3	4	5	6	7	8	9		1		1		1																		
	511		1	2																																			
	512		1	2																																			
	513		1	2																																			
	514		1	2																																			
	515		1	2																																			

Total number of households members: 541 | 0 | 0 |

(2) Side-business

a. Give o mark to whichever applicable ----------> 2 3 4 5 6 7 8 9

b. Give o mark to only main one ----------> 551 | 0 | 0 | 0 | 2 3 4 5 6 7 8 9

c. Major income source

	Own fishery	Other than own fishery
601	0	0	0	1	

2 Persons graduated from junior high school and above in March of this year

Name	Code no.	Sex: Male	Sex: Female	Type of school graduated: Junior high school	Senior high school: Fisheries	Senior high school: Others	University	Present status: Attending at school	Engaged in own business: Fishery: At sea	Engaged in own business: Fishery: On land	Engaged in own business: Agriculture	Engaged in own business: Others	Employed by others: Fishery (including work on land): Staying at home	Employed by others: Fishery (including work on land): Left home	Employed by others: Other than fishery: Staying at home	Employed by others: Other than fishery: Left home	Not working
1	2	3		4				5									
	561	1	2	1 2 3 4				01 02 03 04 05 06 07 08 09 10									
	562	1	2	1 2 3 4				01 02 03 04 05 06 07 08 09 10									
	563	1	2	1 2 3 4				01 02 03 04 05 06 07 08 09 10									

3 Agriculture

(1) Area of cultivated land

		ha	"tan"
Area of cultivated land			
Of which, paddy field area	601		

(2) Sale of agricultural products during the past one year

a. Did you sell any agricultural products during the last one year? (Give o mark whichever applicable)

Yes | No

b. Did the amount of the products sold exceed ¥70,000?

	Below ¥70,000	Over ¥70,000
604		1	

4 Housing

(1) No. of living rooms: 605 | 0 | 0 |

(2) Total no. of the mats (tatami) in the living room: 606

(3) Is the house owned or rented?

	Owned	Rented
	1	

Confidential

Ministry of Agriculture, Forestry and Fisheries

Designated Statistics No. 67

Form No. 2

The Sixth Fishery Census
Marine Fishery Survey

QUESTIONNAIRE ON FISHING BOAT POWERED

Date of survey : Nov. 1st, 1978

Name of head office

Name of enumerator

Name of company

Address of the Head Office

Name of boat	Code no.	Powered fishing boat used during the past one year: Tonnage (e.g.) 1 4 9 8	Owned or not as of Nov 1st 1978: Owned	Not owned	All powered boats held by this establishment as of Nov. 1st: Horse power	Year of construction	Material of hull: Steel	Wood	FRP	Type of main engine: Diesel	Hot bulb	Electrical ignition	Principal fishery engaged as of Nov. 1, 1978 (give the code no.)	No. of days during the past one year	Fishing area: Within 12 miles	12-200 miles	Beyond 200 miles: Within 200 miles off foreign countries	Others	Kinds of the type of fishery	Age of crew: Total	Male: Total	15-29 years old	30-49 years old	50-59 years old	60 years old and over	Female	Fishing area in which the largest sale was achieved: Within 12 miles	12-200 miles	Beyond 200 miles: Within 200 miles off foreign countries	Others	Navigation equipment: Remote control equipment (for engine)	Wireless telephone (Fixed)	Radar	Automatic angler	Only for powered boats of more than 5 tons which was held by establishment as of Nov. 1st: Navigation equipment: Omega Decca	Receiving unit for satellite navigation	Radio mile	Variable pitch propeller	Side thruster	Equipment for fishing: Rope reel, Auto reel	Rope winder	Power block	Buoy roller	Jig roller	Net setter	Quick freezer	Fish finder
①	②	③	④	⑤	⑥	⑦	⑧			⑨			⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑	㉒	㉓	㉔	㉕	㉖	㉗	㉘	㉙	㉚	㉛	㉜	㉝	㉞	㉟	㊱	㊲	㊳	㊴	㊵	㊶	㊷	㊸	㊹
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	19																																															
	20																																															
Total gross tonnage																																															

The Sixth Fishery Census
Marine Fishery Survey

QUESTIONNAIRE FOR THE BASE OF LIVING OF EMPLOYEES

Date of survey : Nov. 1st, 1978

Confidential
Ministry of Agriculture, Forestry and Fisheries

Designated Statistics No. 87
Fishery Census

Form No. 3

	Coastal Region	Prefecture	Municipality	Fishery district	Enumeration district	Serial no. of survey object	Type of management
Name							
Code no.							

Name of head of household or establishment	
Column for confirmation	

Sheet No. _____ Name of enumerator _____

Total number of employees	

Serial number	Name	Sex		Age	Living base (circle either one)			Name of prefecture (Only for person who lives outside this prefecture in item 5)	Code No. of the pref. (To be entered by MAFF)	Name of municipality (Only for person who lives in this prefecture but other municipality or outside this prefecture)	Code No. of municipality (To be entered by MAFF)	Code No. of type of fishery engaged as of Nov. 1st, 1978
		Male	Female		This municipality	This prefecture but other municipality	Outside this prefectures					
①	②	③		④	⑤			⑥	⑦	⑧	⑨	⑩
		1	2		1	2	3				

Confidential

Ministry of Agriculture, Forestry and Fisheries

Designated Statistics No. 67

Fishery Census

Form No. 4

The Sixth Fishery Census

Marine Fishery Survey

QUESTIONNAIRE FOR FISHING EMPLOYEE'S HOUSEHOLDS

Date of survey : Nov. 1st, 1978

Coastal region	Prefecture	Municipality	Fishery district	Enumeration district	Serial no. of household	Type of household

Name of head of household

Name of enumerator

[I] Household and household members

1 Household members and working status of each household members of 15 years old and above

Name	Serial No.	Full age as of Nov. 1st, 1978	Sex: Male	Sex: Female	Head of household	Persons who graduated from junior high school or above schools in March of this year	Type of job engaged during the past one year: Employed as fishing labourer	Employed as labourer other than fishery: Permanent	Employed as labourer other than fishery: Casual	Own fisheries	Own agriculture	Other own business (Limiting to those whose sales amount exceeding ¥ 70,000): Fish processing	Guide for leisure fishing	Seasonal inn	Others	Type of job mainly engaged during the past one year. Enter the code no.	For person who engaged in both fishing labour and any other job: for fishing labour	for other job
①	②	③	④		⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	
15 year-old and above	501		1			1	1			4	5	6	7				1	
	502		1			1	1		3	4	5	6	7				1	
	503		1		1	1	1	2	3	4	5	6	7	8	9		1	
	504		1	2	1	1	1	2	3	4	5	6	7	8	9			
	505		1		1	1	1	2	3	4	5	6	7	8	9			
	506		1		1	1	1	2	3	4	5	6	7	8	9			
	507		1			1	1	2	3	4	5	6	7	8	9			
	508		1			1	1	2	3	4	5	6	7	8	9			
Below 14 year-old	509		1	2														
	510		1															
	511		1															
	512		1															
	513		1															
Total number of household members	514	0	0															

For person who was employed as fishing labourer: worked at sea: Number of working days at sea	Type of fishery engaged (enter the code no.)	The size of boat used was	worked on land only	For person who engaged in own fishery: worked at sea: Working days at sea	Type of fishery engaged (enter the code no.)	The size of boat used was	worked on land only	For person who newly started to engage in fisheries at sea during the past one year: ○ mark for those mentioned above	For person who engaged in jobs other than fishery in the previous year (Nov. 1st 1976 - Oct. 31, 1977): Agriculture & forestry	Mining & construction	Manufacturing	Wholesale or retail	Others	Present residence	Other than present residence: 1 large cities	Other than present residence: others	person who [illegible] the previous year
⑱	⑲	⑳	㉑	㉒	㉓	㉔	㉕	㉖	㉗					㉘			㉙

(3) major income source of this household

[IV] Housing

1 No. of living room

[III] Agriculture

1 Area of cultivated land

(ha) (tan) (a)

Area of cultivated land	602
Of which, area of paddy field	603

2 Total number of the mats in the living rooms

2 Side-business

(1) give o mark for whichever applicable → 2 3 4 5 6 7 8 9

(2) give o mark to main one only → 551 2 3 4 5 6 7 8 9

[II] Person graduated from jur or high school or above of March of this year

Name	Serial No.	Sex: Male	Sex: Female	Kinds of school: Junior high school	Senior high school: Fisheries	Senior high school: Other	University	Present status (circle one item): Attending at school	Engaged in own business: [illegible]	Engaged in own business: Agriculture	Engaged in own business: Others	Employed [in others]: Fishery (including work on land): staying at home	Employed [in others]: Fishery (including work on land): Left home	Employed [in others]: others: staying at home	Employed [in others]: others: Left home
									work at sea	Work on land					
①	②	③		④				⑤							
	515	1					3								
	516	1					3								
	517	1					3								

2 Sales of agricultural products during the past one year

(1) Did you sell any agricultural products during the past one year?

Yes → (2) Did the amount of the products sold exceed ¥ 70,000?

Yes: ¥70,000 or more	No: Less than ¥70,000
1	2

3 Is the house owned or rented?

Owned	Rented
1	2

[V] Wage income obtained from fishery employment for this household

Less than ¥299 thousands	300 ~ 499	500 ~ 999	1,000 ~ 1,999	2,000 ~ 2,999	3,000 ~ 3,999	4,000 ~ 4,999	More than ¥5,000 thousands
1	2	3	4	5	6	7	8

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Ministry of Agriculture, Forestry and Fisheries

Designated Statistics No. 67

Fishery Census

Form No. 5

Name of lake						
	Lake	Prefecture	City, town, village	Enumeration district	Serial no. of survey object	Type of management (code no.)
Name						
Code no.						

The Sixth Fishery Census
Inland Fishery Survey

QUESTIONNAIRE FOR LAKE FISHING ESTABLISHMENTS

Date of survey : Nov. 1st 1978

Name of head of household or establishment	

Name of enumerator

Code no. of size of management	

[I] Fishery management

1 Types of fishery engaged during the past one year

					Give a mark for whichever applicable	Give a mark only for the one which sale was largest
Net fishery	Trawl	101	0	0	1	2
	Gill net	102	0	0	1	2
	Lift net	103	0	0	1	2
	Beach seine, boat seine	104	0	0	1	2
	Set net	105	0	0	1	2
	Cast net	106	0	0	1	2
	Other net fisheries	107	0	0	1	2
Angling		108	0	0	1	2
Long line		109	0	0	1	2
Shellfish and seaweed collecting		110	0	0	1	2
Other fisheries	Portabe trap	111	0	0	1	2
	Others	112	0	0	1	2
Aquaculture	Fish culture: Net cage	113	0	0	1	2
	Fish culture: Others	114	0	0	1	2
	Pearl culture	115			1	2
	Other cultures	116	0	0	1	2

2 Fishing boat

(1) Fishing boat used during the past one year

			Used	Not used
Non-powered boat	121	0 0 0	1	2
Out-board powered boat	122	0 0 0	1	2
In-board powered boat	123	0 0 0	1	2

(2) Number of the **boats** held as of Nov. 1 used out of all boats **during the past one year**

a) Non-powered boat

Wooden boat	124	0	0	
FRP boat	125	0	0	

b) Out-board powered boat

Wooden boat	126	0	0	
FRP boat	127	0	0	

c) In-board powerd boat

Wooden boat	128	0	0	
FRP boat	129	0	0	
Steel boat	130	0	0	

(3) Total tonnage of in-board powered **boats**

		(t)
Boat used during the past one year	131	
Boat held as of Nov. 1st	132	

3 Kinds of species caught during the past one year

					Give a mark for whichever applicable	Give a mark for the main one only
Fish	Carp	141	0	0	1	2
	Crucian carp	142	0	0	1	2
	Sweet fish	143	0	0	1	2
	Dace	144	0	0	1	2
	Smelt	145	0	0	1	2
	Salmon	146	0	0	1	2
	Icefish	147	0	0	1	2
	Eel	148	0	0	1	2
	Goby	149	0	0	1	2
	Other fish	150	0	0	1	2
Shellfish	Fresh water clam	151	0	0	1	2
	Pearl oyster	152	0	0	1	2
	Other shellfish	153	0	0	1	2
Other aquatic animal	Shrimps	154	0	0	1	2
	Mysids	155	0	0	1	2
	Others	156	0	0	1	2
Others		157	0	0	1	2

4 Number of persons usually engaged in fishery

Total			161	0	
By sources	Household member		162	0	
	Employee		163	0	
Sex and age	Male	Total	164	0	
		15-29 years old	165	0	
		30-49	166	0	
		50-59	167	0	
		60 years old and over	168	0	
	Female		169	0	

5 Number of working days on lake during the past one year

	29 days and below	30 ~ 89 days	90 ~ 149	150 ~ 199	200 ~ 249	250 days and over
170 0 0 0	1	2	3	4		6

6 Total sale of catch during the past one year

	Not sold	Less than 100 thousands yen	100 ~ 300	300 ~ 500	500 ~ 1,000	1,000 ~ 2,000	2,000 ~ 3,000	3,000 ~ 5,000	More than 5,000 thousands yen
171 0 0 0	1	2	3	4	5	6	7	8	9

7 Catch was sold to

		Give a mark for whichever applicable	Give a mark for the main one only
Fisheries cooperative			
Fish dealer	173 0 0	1	2
Retailer	174 0 0	1	2
Fish processor	175 0 0	1	2
Leisure fish pond	176 0 0	1	2
Other fishing operators	177 0 0	1	2
Restaurant, etc.	178 0 0	1	2
Home consumer	179 0 0	1	2
Others	180 0 0	1	2

[II] Household and household members

1 Household members and working status of **household member of 15 years old** and above

Name	Code no.	Full age as of Nov. 1st 1978	Sex: Male	Sex: Female	Head of household	Type of job engaged during the past one year: Own fishery	Own agriculture	Guide for leisure fishing	Other own businesses	Employed by other	Not worked	Type of job mainly engaged during the past one year (Enter the code no.)	Number of working days on lake for own fishery
①	②	③	④		⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬
15 years old and over		201			1	1	2	3	4	5	6		
		202			1	1	2	3	4	5	6		
		203			1	1	2	3	4	5	6		
		204			1	1	2	3	4	5	6		
		205			1	1	2	3	4	5	6		
		206			1	1	2	3	4	5	6		
below 14 years old		211											
		212											
		213											
		214											

Total number of household members	241		

2 Side-business (1) a mark for whichever applicable

(2) a mark for the main one only

251	0	0	0	1	2	4

(3) Major income source

	Own fishery	Other than own fishery
261 0 0 0	1	2

[III] Agriculture

1 Area of cultivated land

		(ha) (tan) (a)
Area of cultivated land	301	
Of which, area of paddy field	302	

2 Sale of agricultural products during the past one year

Did you sell any agricultural products during the past one year?

Yes 1

No 2

	More than ¥[illegible]	Less than ¥[illegible]
311	1	2

1 Survey on "Biwa" lake

1 Types of fishery (during the past one year)

Circle all items applicable and circle duble main item

Trawls				Lift net		Gill net				Long line	Beach seine	Set net			
Shell-fish trawl	Off shore trawl	Row boat trawl		Four arm scoop-net	Large dip-net	Long fine yarn net	Fine yarn net	Small mesh fine yarn net	Other gill nets			Small mesh weir	Other weirs	"Yana"	Drop net
		Trawl	Dredge net												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Shell-fish col-lecting	Pots		Sweet fish dip net	Cast net	"Mondori"	Bamboo tube	Other fish-eries	Pearl cul-ture	Pearl oyster cul-ture	Cage fish cul-ture	Other cul-tures	Total no. of days fished
	Shrimp pot	Other pots										
17	18	19	20	21	22	23	24	25	26	27	28	

2 Number of fishing days by type of fishery (During the past one year)

3 Pearl culture

(1) Area under culture ____ m²

(2) Number of shells under culture (Held as of Nov. 1)

Shells injected with nucleus				Shells without injection			
Total	Less than 1 year after injection	1-2 years after injection	More than 2 years after injection	Total	Mother shell	Shell for injection	Others

(3) Number of workers engaged in pearl culture

Total	Family member	Employee	Operator

4 Availabilty of boat moaring facilcty

Fishing port	Pool	Lake shore	Others
1	2	3	4

2 Survey on Lakes of "Kasumigaura", "Kitaura" and "Sotonamisakaura"

1 Types of fishery (during the past one year)

Circle all items applicable and circle duble main item

Trawls					Gill net		Boat seine (include boat seine by non-powered boat)	Set net		Long line	weir	"Tuke"		"Uke"	Other fish-eries	Pearl cul-ture	Cage cul-ture	Other cul-tures	Total no. of days fished
"Isaza" trawl	"Manguwa" trawl	Fresh water	Sail-ing trawl	Pond smelt trawl	Pond smelt gill net	Miscel-laneous fish gill net		wicker net	Stake net			"Oda"	"Sasa-zuke"						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	

2 Numer of fishing days by type of fishery (During the past one year)

3 Pearl culture

(1) Area under culture ____ m²

(2) Number of shells under culture as of Nov. 1st, 1978

Shell injected				Other shells		
Total	Less than 1 year after injection	1-2 years after injection	More than 2 years after injection	Total	Uninjected Mother shell	Others

(3) Number of workers engaged in pearl culture

Total	Family member	Employee	Operator

4 Availability of boat moaring facility

Fishing port	Pool	Lake shore	Others
1	2	3	4

Confidential

Ministry of Agriculture, Forestry and Fisheries

Designated Statistics No. 67

Fishery Census

Form No. 6

	Prefecture	Municipality	Enumeration district	Serial no. of survey object	Type of management
Name					
Code no.					

The Sixth Fishery Census

Inland Fishery Suevey

QUESTIONNAIRE FOR INLAND WATER CULTURE ESTABLISHMENTS

Date of survey : Nov 1st, 1978

Name of head of household or company

Name of enumerator

[I] Aquaculture management

1 Type of culture operated during the past one year

			Circle all Types of culture engaged	○ mark for the one which sale was largest	○ mark for pods if there
For food use	Rainbow trout	101	1	2	3
	"Amago" landlocked salmon	102	1	2	3
	"Yamame" landlocked salmon	103	1	2	3
	Tilapia	104	1	2	3
	Sweet fish	105	1	2	3
	Carp	106	1	2	3
	Crucian carp	107	1	2	3
	Eel	108	1	2	3
	Loach	109	1	2	3
	Fresh-water snail	110	1	2	3
	Soft-shelled turtle	111	1	2	3
	Others	112	1	2	3
For fish seed production	Trout	113	1	2	3
	Sweet fish	114	1	2	3
	Carp	115	1	2	3
	Eel	116	1	2	3
	Others	117	1	2	3
For ornamental fish	Fancy carp	118	1	2	3
	Golden fish	119	1	2	3
	Others	120	1	2	3

2 Methods of culture

			○ mark if each is whichever applicable	○ mark for the main one
Pond culture	With still water	121	1	2
	With running water	122	1	2
Reservoir culture		123	1	2
Net cage culture		124	1	2

3 Number of ponds

			lot
Pond culture	With still water	131	
	With running water	132	
Reservoir culture		133	
Net cage culture		134	

4 Area under culture

			a
Pond culture	With still water	141	*
	With running water	142	*
Reservoir culture		143	*
Net cage culture		144	*

5 Was Your aquaculture due to a government policy of converting from paddy farming others?

Yes / No

(1) If yes, when was it?

Before / After Nov 1st

6 Number of persons who usually engage in aquaculture

Total		161	
By sources	Family member	162	
	Employee	163	
By sex and age	Male Total	164	
	Male 15-29 years old	165	
	Male 30-49	166	
	Male 50-59	167	
	Male 60 years old and over	168	
	Female Total	169	

7 Size of sale during the past one year

	No sold	Less than 300 thousand yen	300-600	600-1,000	1,000-3,000	3,000-5,000	5,000-10,000	10,000-20,000	20,000-50,000	50,000 and over
171	00	01	02	03	04	05	06	07	08	09

[II] Household and household members

1 Household members and working status of household member of 15 years old and over

Name	Code no.	Full age as of Nov 1st 1978	Sex: Male	Sex: Female	Head of household	Type of job engaged during the past one year: Own aqua-culture	Own agri-culture	Own business related to aqua-culture	Other own business	Employed by others	Not worked	Type of job mainly engaged during the past one year	Number of days engaged in own culture
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	
15 years old and over	201		1	2	1	1	2	3	4	5	6		
	202		1	2	1	1	2	3	4	5	6		
	203		1	2	1	1	2	3	4	5	6		
	204		1	2	1	1	2	3	4	5	6		
	205		1	2	1	1	2	3	4	5	6		
	206		1	2	1	1	2	3	4	5	6		
Below 14 years old	216	0	1	2									
	217	0	1	2									
	218	0	1	2									
	219	0	1	2									

Total number of household members 241 (persons)

2 Side business

(1) ○ mark for whichever applicable → 2 3 4 5

(2) ○ mark for the main one → 251 | 2 3 4 5

(3) Major income source

Mainly from aquaculture / Mainly from other aqua-culture

261 | 1 2

[III] Agriculture (To be entered for fish culture household only)

1 Area of cultivated land

		(ha) (tan) (se)
Area of cultivated land	301	
Of which, area of paddy field	302	

2 Sale of agricultural products during the past one year

(1) Were thers any sale of agricultural products during the past one year?

Yes / No

(2) Size of sale of agricultural product

	More than ¥70,000	Less than ¥70,000
311 00	1	2

[IV] Culture of the food fish by species

1 Species which sale was the largest

(1) Name of fish 401

(2) Method of culture

			○ mark if each is whichever applicable	○ mark for the main one
Pond culture	With still water	402	1	2
	With running water	403	1	2
Reservoir culture		404	1	2
Net cage culture		405	1	2

(3) Area under culture

			a
Pond culture	With still water	406	*
	With running water	407	*
Reservoir culture		408	*
Net cage culture		409	*

(4) Facilities to make water warm

a Available or not

	Yes	No
410 000	1	2

b. Area enjoying such facilities 411 m²

c. Operation period for such facilities

	○ mark for nursing	Only for rearing	Both for nursing and for rearing
412 000	1	2	3

(5) Kind of water used

		○ mark for whichever applicable	○ mark for the main one
Spring water	413	1	2
River water	414	1	2
Well water	415	1	2
Irrigation water	416	1	2
Lake water	417	1	2
Hot spring water	418	1	2
Industrial waste hot water	419	1	2
Others	420	1	2

(6) Water used for pond culture

a In case where water volume is measurable

Volume per sec. 421 (l/sec)

Number of months irrigated 422 00 (months)

b. In case where water volume is unmeasurable

Area of water inlet 423 (cm²)

Water flow speed per sec. 424 (cm/sec)

Number of months irrigated 425 00 (months)

c. Total volume of water used per year m³

(7) Fish seeds

a. Source of fish seeds

	Only home-made	Mainly home-made	Mainly pur-chased	Only pur-chased
426	1	2	3	4

b. For based from

		○ mark for whichever applicable	○ mark for the main one
Experimental station	427	1	2
Fisheries cooperatives	428	1	2
Agricultural cooperatives	429	1	2
Private seed seller	430	1	2
Others	431	1	2

(8) Kinds of the feed

			○ mark for whichever applicable	○ mark for the main one
Compound feed	Home-made	432	1	2
	Ready-compounded	433	1	2
Pupae		434	1	2
Fishes		435	1	2
Others		436	1	2

(9) Labour input (Total man-day during the past one year)

(Man-day)

Family member	437	*
Employee	438	*

(10) Yield (during the past one year)

439 kg

(11) Yield was sold to

		○ mark for whichever applicable	○ mark for the main one
Fisheries cooperatives	440	1	2
Wholesaler	441	1	2
Retailer	442	1	2
Fish processor	443	1	2
Leisure fishpond	444	1	2
aquaCulture establishment	445	1	2
Restaurant etc.	446	1	2
Home consumer	447	1	2
Others	448	1	2

(12) Conditions of the yield for sale

		○ mark for whichever applicable	○ mark for the main one
Alive	449	1	2
Fresh	450	1	2
Processed	451	1	2

(13) Total sale of yield (during the past one year)

(ten thousands yen)

452 *

(14) Production cost

(ten thousands yen)

For fish seeds	453	*
For feed	454	*
For labor	455	*
For fuel and pesticide	456	*

[IV] Culture of food fish by species (continued)

2 Species other than that covered under 1 above

(1) Name of fish

	501	0

(2) Method of culture

				All items applicable	One principal
Pond culture	Still water system	502	0 0	1	2
	Running water system	503	0 0	1	2
Reservoir culture		504	0 0	1	2
Net cage culture		505	0 0	1	2

(3) Area of culture

(a)

Pond culture	Still water system	506		*
	Running water system	507		*
Reservoir culture		508		*
Net cage culture		509		*

(4) Water heating and hot water storing facilities

a. Whether or not there are these facilities

				Yes	No
510	0	0	0	1	2

b. Area of the facilities (m²)

511		*

c. Operation period of the facilities

				Only for seeding	Only for rearing	Both for seeding and for rearing
512	0	0	0	1	2	3

(5) Kind of water

			All items applicable	One principal
Spring water	513	0 0	1	2
River water	514	0 0	1	2
Well water	515	0 0	1	2
Irrigation water	516	0 0	1	2
Lake water	517	0 0	1	2
Hot spring water	518	0 0	1	2
Industrial waste hot water	519	0 0	1	2
Others	520	0 0	1	2

(6) Water used for pond culture

a. In case where water volume is measurable

Volume per sec.	521		(l/sec.)
Period of filling-up	522	0 0	(month)

b. In case where water volume is unmeasurable

Area of water inlet	523	(cm²)
Water flow speed per sec.	524	(cm/sec.)
Period of filling-up	525	0 0 (months)

c. Total volume of water used per year (m³)

(7) Fish seeds

a. Home made or purchased

				Only home-made	Mainly home-made	Mainly purchased	Only purchased
526	0	0	0	1	2	3	4

b. Supplier of the seeds

			All items applicable	One principal
Experimental station	527	0 0	1	2
Fisheries cooperatives	528	0 0	1	2
Agricultural cooperatives	529	0 0	1	2
Seed rearer	530	0 0	1	2
Others	531	0 0	1	2

(8) Kinds of the feed

				All items applicable	One principal
Compound feed	Home compounded	532	0 0	1	2
	Ready compounded	533	0 0	1	2
Pupae		534	0 0	1	2
Fishes		535	0 0	1	2
Others		536	0 0	1	2

(9) Labour volume (Total man-day during the past one year)

(Man-day)

Family	537		*
Employee	538		*

(10) Yield (during the past one year)

(kg)

539		*

(11) Buyer of the yield

			All items applicable	One principal
Fisheries cooperatives	540	0 0	1	2
Wholesaler	541	0 0	1	2
Retailer	542	0 0	1	2
Fisheries processing enterprise	543	0 0	1	2
Leisure fishpond	544	0 0	1	2
Culture establishment	545	0 0	1	2
Commercial consumer	546	0 0	1	2
Home consumer	547	0 0	1	2
Others	548	0 0	1	2

(12) Conditions of the catch for sale

			All items applicable	One principal
Alive fish	549	0 0	1	2
Fresh fish	550	0 0	1	2
Processed fish	551	0 0	1	2

(13) Total sale of the yield (during the past one year)

(ten thousands yen)

552		*

(14) Production cost

(ten thousands yen)

For seeds	553		*
For feed	554		*
For labor	555		*
For fuel, light and chemicals	556		*

[IV] Culture of food fish by species (continued)

2 Species other than that covered under 1 above (Note: Majer five species were surveied in actual survey)

(1) Name of fish

	601	0

(2) Method of culture

				All items applicable	One principal
Pond culture	Still water system	602	0 0	1	2
	Running water system	603	0 0	1	2
Reservoir culture		604	0 0	1	2
Net cage culture		605	0 0	1	2

(3) Area of culture

(a)

Pond culture	Still water system	606		*
	Running water system	607		*
Reservoir culture		608		*
Net cage culture		609		*

(4) Water heating and hot water storing facilities

a. Whether or not there are these facilities

				Yes	No
610	0	0	0	1	2

b. Area of the facilities (m²)

611		*

c. Operation period of the facilities

				Only for seeding	Only for rearing	Both for seeding and for rearing
612	0	0	0	1	2	3

(5) Kind of water

			All items applicable	One principal
Spring water	613	0 0	1	2
River water	614	0 0	1	2
Well water	615	0 0	1	2
Irrigation water	616	0 0	1	2
Lake water	617	0 0	1	2
Hot spring water	618	0 0	1	2
Industrial waste hot water	619	0 0	1	2
Others	620	0 0	1	2

(6) Water used for pond culture

a. In case where water volume is measurable

Volume per sec.	621		(l/sec.)
Period of filling-up	622	0 0	(month)

b. In case where water volume is unmeasurable

Area of water inlet	623	(cm²)
Water flow speed per sec.	624	(cm/sec.)
Period of filling-up	625	0 0 (months)

c. Total volume of water used per year (m³)

(7) Fish seeds

a. Home made or purchased

				Only home-made	Mainly home-made	Mainly purchased	Only purchased
626	0	0	0	1	2	3	4

b. Supplier of the seeds

			All items applicable	One principal
Experimental station	627	0 0	1	2
Fisheries cooperatives	628	0 0	1	2
Agricultural cooperatives	629	0 0	1	2
Seed rearer	630	0 0	1	2
Others	631	0 0	1	2

(8) Kinds of the feed

				All items applicable	One principal
Compound feed	Home compounded	632	0 0	1	2
	Ready compounded	633	0 0	1	2
Pupae		634	0 0	1	2
Fishes		635	0 0	1	2
Others		636	0 0	1	2

(9) Labour volume (Total man-day during the past one year)

(Man-day)

Family	637		*
Employee	638		*

(10) Yield (during the past one year)

(kg)

639		*

(11) Buyer of the yield

			All items applicable	One principal
Fisheries cooperatives	640	0 0	1	2
Wholesaler	641	0 0	1	2
Retailer	642	0 0	1	2
Fisheries processing enterprise	643	0 0	1	2
Leisure fishpond	644	0 0	1	2
Culture establishment	645	0 0	1	2
Commercial consumer	646	0 0	1	2
Home consumer	647	0 0	1	2
Others	648	0 0	1	2

(12) Conditions of the yield for sale

			All items applicable	One principal
Alive fish	649	0 0	1	2
Fresh fish	650	0 0	1	2
Processed fish	651	0 0	1	2

(13) Total sale of the yield (during the past one year)

(ten thousands yen)

652		*

(14) Production cost

(ten thousands yen)

For seeds	653		*
For feed	654		*
For labor	655		*
For fuel, light and chemicals	656		*

[IV] Culture of food fish by species (continued)

2 Species other than that covered under 1 above (Note: Majer five species were surveied in actual survey)

(1) Name of fish

	601	0	

(2) Method of culture

			All items applicable	One principal
Pond culture	Still water system	602	1	2
	Running water system	603	1	2
Reservoir culture		604	1	2
Net cage culture		605	1	2

(3) Area of culture

(a)

Pond culture	Still water system	606	•
	Running water system	607	•
Reservoir culture		608	•
Net cage culture		609	•

(4) Water heating and hot water storing facilities

a. Whether or not there are these facilities

	Yes	No
610	1	2

b. Area of the facilities (m^2)

611	•

c. Operation period of the facilities

	Only for seeding	Only for rearing	Both for seeding and for rearing
612	1	2	3

(5) Kind of water

		All items applicable	One principal
Spring water	613	1	2
River water	614	1	2
Well water	615	1	2
Irrigation water	616	1	2
Lake water	617	1	2
Hot spring water	618	1	2
Industrial waste hot water	619	1	2
Others	620	1	2

(6) Water used for pond culture

a. In case where water volume is measurable

Volume per sec. (l/sec.)	621	
Period of filling-up (month)	622	

b. In case where water volume is unmeasurable

Area of water inlet (cm^2)	623	
Water flow speed per sec. (cm/sec.)	24	
Period of filling-up (months)	625	

c. Total volume of water used per year m^3

(7) Fish seeds

a. Home made or purchased

	Only home-made	Mainly home-made	Mainly purchased	Only purchased
626	1	2	3	4

b. Supplier of the seeds

		All items applicable	One principal
Experimental station	627	1	2
Fisheries cooperatives	628	1	2
Agricultural cooperatives	629	1	2
Seed rearer	630	1	2
Others	631	1	2

(8) Kinds of the feed

			All items applicable	One principal
Compound feed	Home compounded	632	1	2
	Ready compounded	633	1	2
Pupae		634	1	2
Fishes		635	1	2
Others		636	1	2

(9) Labour volume (Total man-day during the past one year)

(Man-day)

Family	637	•
Employee	638	•

(10) Yield (during the past one year)

(kg)

639	•

(11) Buyer of the yield

		All items applicable	One principal
Fisheries cooperatives	640	1	2
Wholesaler	641	1	2
Retailer	642	1	2
Fisheries processing enterprise	643	1	2
Leisure fishpond	644	1	2
Culture establishment	645	1	2
Commercial consumer	646	1	2
Home consumer	647	1	2
Others	648	1	2

(12) Conditions of the yield for sale

		All items applicable	One principal
Alive fish	649	1	2
Fresh fish	650	1	2
Processed fish	651	1	2

(13) Total sale of the yield (during the past one year)

(ten thousands yen)

652	•

(14) Production cost

(ten thousands yen)

For seeds	653	•
For feed	654	•
For labor	655	•
For fuel, light and chemicals	656	•

Confidential
Ministry of Agriculture, Forestry and Fisheries
Designated Statistics No. 67
Fishery Census

Form No. 7

Type of cooperatives			
Federation	Unit cooperative		
	River	Lake	Aquaculture
1	2	3	4

Prefecture	
Regional office	
Municipality	
Serial no. of fisheries cooperatives (To be entered by prefecture)	

The Sixth Fishery Census
Inland Fishery Survey

QUESTIONNAIRE FOR INLAND FISHERY COOPERATIVES

Date of survey : Nov. 1st, 1978

Name of cooperatives	
Address	
Name of river system or lake (only for river and lake	
Name of enumerator	

[I] Size and economic activities of the cooperatives

1 Members

(1) Number of regular members and associate members

Total	
Regular	
Associate	

(2) Qualification of membership in terms of no. of fishing days ⇨

2 Investment

	Invested cooperatives	Non-invested cooperatives
(1) Whether or not are there investment?	1	2

(2) Number of lots of investment ⇨

(3) Total amount of capital ⇨ ten thousands yen

(4) Capital per member ⇨ yen

3 Executive officers and staff

(1) Number of executive officers

Total	
Full-time officer	
Part-time officer	

(2) Availability of staff

a. Yes ( )

Total	person
Full-time	person
Part-time	person

b. No ( )

4 Business for sale and purchase

(1) Availability of sale's business

a. Yes ( )

Commission rate	%
Annual volume of catches transacted	tons
Of which, volume of catch jointly shipped	tons

b. No ( )

(2) Availability of purchase business

a. Yes ( )

b. No ( )

Items handled	○ mark if applicable	Amounts transacted
		ten thousands yen
Total amount		
Seeds for culture		
Feed for culture		
Others		

5 Credit business

Availability of credit business

Yes	No
1	2

6 Business for seed production

(1) Availability of seed production

Yes	No
1	2

(2) Species of fish seeds (give a mark for whichever applicable and ○ mark for the main one)

Salmon		Sweet fish	Carp	Crucian carp	Eel	Others
Anadromous	Landlocked					
1	2	3	4	5	6	7

7 Guide for leisure fishing, leisure fish pond and restaurant

(1) Availability of such activities

Yes	No
1	2

(2) Type of activities

Guide for leisure fishing		Leisure fish pond	Restaurant
Weir	Others		
1	2	3	4

[II] Management of fisheries resources

1 Conservation of fisheries resources

(1) Availability of such activities

	Yes	No	
Release of fish seeds	1	2	⇨ to 2
Issuance of cooperatives membership certificate and permit of leisure fishing	1	2	⇨ to 2
Management of resource conservation area	1	2	
Construction and management of spawning ground	1	2	
Construction and management of fish passage	1	2	
Others	1	2	

Specify the activities ⇨ ( )

2 Release of fish seeds

(1) Number of fish seeds released

Species	Total	Salmons		Sweet fish	Carp	Crucian carp	Eel	Others
		Anadromous	Landlocked					
Fry (1,000)								
Fertilized eggs (1,000)								

(2) Operation cost

a. Total of leisure fishing fee ⇨ ten thousands yen

b. Total cost for overall activities (including management cost) ⇨ ten thousands yen

c. Total cost for release of fish seeds ⇨ ten thousands yen

(3) Cost for release of fish seeds by water systems and by species

(ten thousands yen)

Name of water system \ Species	Salmons		Sweet fish	Carp	Crucian carp	Eel	Others
	Anadromous	Landlocked					
Total							

3 Number of membership certificates and leisure fishing permit issued

(1) Number of certificates and fishing permits issued

Validity \ Type	Membership certificate		Leisure fishing permit
	Regular	Associate	
One year			
Fishing season only			
One day only			

[III] Total number of persons who engaged in leisure fishing by species during the past one year

(excluding regular member of cooperative)

River system \ Species	Salmon	Sweet fish	Carp	Crucian carp	Smelt	Others

2 Number of members by type of fishing gear

ore than 50 days	Type of fishing gear / Name of water system	Net fishing			Angling	Others
		Gill net	Cast net	Other net fishing		
	Total					

h						Shellfish		
	Crucian carp	Dace	Eel	of which, the seeds of eel	Others	Freshwater clam	Other shell fish	Others

umber of members by size of sale

mount of sale / water	Total	Less than 50,000 yen	50,000-100,000 yen	100,000-300,000 yen	300,000-500,000 yen	500,000-1,000,000 yen	More than 1,000,000 yen
otal							

Designated Statistics No. 67
Fishery census

Form No. 8

The Sixth Fishery Census

Fishery District Survey

QUESTIONNAIRE FOR GENERAL CONDITION OF FISHERY DISTRICT

Date of survey : Nov. 1st, 1978

Coastal region	
Prefecture	
Municipality	
Fishery district	

Regional Agriculture Administration Office	
Statistics & Information Office	
Branch Office of the above	

Ministry of Agriculture, Forestry & Fishery

CONTENTS

I. GENERAL SITUATIONS OF FISHERY DISTRICT

1. Topograpy and Transportation

2. Road Condition and No. of Passenger Cars available

3. Condition of Seashore

4. Composition of Land Area by Type of Usage

5. Household and Population

6. Main Industries

7. Relations with the Districts Designated by Laws for Promotion and Development

8. Welfare & Recreational Facilities for Fishermen

9. Environment for Living Life

10. Environment around Fishing Ground

11. Facilities Related to Fishery

II. FISH MARKETS & FISH WHOLESALERS

1. Fish Market

2. Fish Wholesaler

III. FACILITIES OF FISHING PORT AND ITS UTILIZATION

1. Facilities of Fishing Port

2. Number and Total Tonnage of Fishing Boats entered During the Past One Year

3. Tonnage of the Largest Fishing Boat Entered During the Past One Year

4. Number of Boats Other than Fishing Boats During the Past One Year

IV. FISHERIES COOPERATIVES

1. General Status

2. Type of Business

Name of fishery district	

I. GENERAL SITUATIONS OF FISHERY DISTRICT

1. Topograpy and Transportation

(o mark for whichever applicable and ◎ mark for the main one)

Main land	Railways	1
	Bus route	2
	Regular ferry boat	3
	No public transportation	4
Islands	Bus route	5
	Regular ferry boat	6
	No public transportation	7

2. Road Condition and No. of Passenger Cars available

(1) Road conditions in fishery district.

	(Available or not)		Width of road		Pavement ratio
	Existing	Not existing	Max.	Min.	
National road	1	2	. m	. m	%
Prefectural road	1	2	.	.	
Municipal road	1	2	.	.	

(2) Number of passenger cars available

Regular & small car	
Light weight car	

3. Condition of Sea-shore

(1) Length of coastal line (m)

Total		
Sea coast preservation area	Total	
	Fishing port	
	Commercial port	
	Reclaimed land	
	Others	
Sea coast other than above	Total	
	Fishing port	
	Commercial port	
	Natural sea-shore	
	Industrial site	
	Others	

Name of fishery district	

(2) Type of beach

Rocky beach	1
Sandy beach	2

(3) Tideland

Available	Sandy	1
	Muddy	2
Not available		3

(4) Seaweed growing area

Available	1
Not available	2

4. Composition of Land Area by Type of Usage

Total area		km^2
Composition (%)	Total	100%
	Cultivated land	
	Forest	
	Housing	
	Others	

5. Household and Population

(as of Nov. 1st, 1978)

(1) No. of households ----------→ [ ]

(2) Population ----------→ [ ]

6. Main Industries

(o mark for the one for which maximum number of people engaged)

Primary industry	Fishery	1	1
	Agriculture and forestry	2	
Secondary industry		3	2
Tertiary industry		4	3

Name of fishery district	

7. Relations with the Districts Designated by Laws for Promotion and Development

(o mark for whichever applicable)

Steep gradient area	1
Mountainous village area designated by Mountainous Village Promotion Law	2
Area designated for new industrial cities	3
Special area designated for industrial rearrangement	4
Area for city planning	5
Area designated by Agriculture Promotion Law	6
Least populated area designated by the law relating to far-excessive ruralization	7
Area designated for coastal fisheries promotion	8
Area designated for fishing port development	9
Area designated for remote island development	10

8. Welfare & Recreational Facilities for Fishermen

(1) Seamens home

a. Available or not

Available	1
Not available	2

---b. Organization which provided the facility

National government	1
Local government	2
Other public body	3

(2) Public hall

a. Available or not

Available	1
Not available	2

---b. Organization which provided the facility

Municipality	1
Fisheries cooperatives	2

Name of fishery district	

(3) Recreational facility

a. Available or not

Existing	1
Not available	2

→ b. Organization which provided the facility

Municipality	1
Fisheries cooperatives	2

(4) Medical treatment facilities

	Available	Not available
Hospital	1	2
General clinic	1	2
Dental clinic	1	2

9. Environment for living Life

(1) Service of drinking water supply, sewerage, and city gas supply

	Not available	Availability (%) *		
		less than 50 %	50 ∿ 70%	70 % and over
Drinking water supply	1	2	3	4
Simple drinking water supply	1	2	3	4
Sewerage	1	2	3	4
City gas supply	1	2	3	4

(2) Public service of sewage and garbage disposal

	No.of households,(%)public service available		
	Not available	less than 50%	50 % and over
Sewage disposal	1	2	3
Garbage disposal	1	2	3

* % ratio of the number of households enjoying the facility to the total number of households

Name of fishery district	

(3) Telephone service

Not available	Availability (%) *		
	Less than 50%	50 ∿ 70%	70 % and over
1	2	3	4

10. Environment around Fishing Ground

(1) Land reclamation and abandonment of fishing right

(During period from 1973 to 1977)

a. Occurrence of the cases in the fishery district

	Occured	Not occured
Abandonment of fishing right	1	2
Land reclamation	1	2

b. Cause for abandonment of fishing right

(o mark for whichever applicable and ◎ for the main one)

Land reclamation	1
Water pollution	2
Discharge of high temperature water	3
Construction of commercial or fishing port	4
Expansion of navigation route	5
Others	6

↳Specify the reason _____

c. Objectives of land reclamation

(o mark for whichever applicable and ◎ mark for the main one)

Construction of commercial or fishing port	1
Construction of industrial site	2
Construction of farm land	3
Construction of housing area	4
Construction of roads	5
Others	6

↳Specify the purpose _____

Name of fishery district	

(2) Occurrence of oil contamination and red tide

(During period from 1973 to 1977)

		1973	1974	1975	1976	1977
Oil contamination	Occured	1	1	1	1	2
	Not occured	2	2	2	2	2
Red tide	Occured	3	3	3	3	3
	Not occured	4	4	4	4	4

(3) Leisure fishing

a. No. of guides for leisure fishing

Fisheries cooperatives	
Fishermen	
Professional guide for leisure fishing	
Others	
Total	

b. No. of boats used for guide service and no. of days spent for such a service during the past one year

	Non-powered boat	Powered boat	
		Fishing boat	Other boat
No. of boats used			
Average no. of days/boat/year			

c. No. of persons enjoyed in leisure fishing during the past one year

Type of leisure fishing	Total number of persons enjoyed in leisure fishing in a year			
	Through Fisheries coop. and fishermen	Through professional guide for leisure fishing	Others	Total
Angling				
Diving				
Shellfish collecting				
Others				
Total				

→ Specify the type of leisure fishing

1 _____

2 _____

3 _____

Name of fishery district	

(4) Release of fish seeds (1973 - 1977)

a. No. of fish seeds released

Thousand fishes, shells or eggs

Species		1973	1974	1975	1976	1977
Man-made fish seeds	Sea bream					
	Flounders					
	"Kuruma" shrimp					
	Swimming crab					
	Abalone					
	Salmons					
	Trout					
	Others					
Natural fish seeds collected	Scallop					
	Little clam					
	Clam					
	Others					

→Specify the species

1 _____

2 _____

→Specify the species

1 _____

2 _____

b. Organization released fish seeds

National government (including "Seto" inland sea fish farming center)	1
Prefectural government (including prefectural fisheries experimental station)	2
Municipal government	3
Fisheries cooperatives	4
Others	5

→Specify the name of organization

1 _____

2 _____

Name of fishery district	

11. Facilities Related to Fishery

(1) Shipyard

	Name	Type of management				No. of workers	No. of facilities			Max. size of fishing boat that can be built		
		Indi-vidual	Company	Fisheries coop	Others		Dry dock	Floating dock	Overhead crane	FRP boat	Wooden boat	Steel boat
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

(2) Stores selling fisheries materials

	Name	Type of management				No. of workers	Commodities on sale					
		Individual	Company	Fisheries coop.	Others		Fishing equipment	Navigation equipment	Fishing net & gear	Aquaculture materials	Fish container	Paint
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

Name of fishery district	

(3) Fuel station

	Name	Type of management				No. of workers	Oil tank capacity			Annual amount of heavy oil sold	of which, that sold to fishing boats (%)
		Individual	Company	Fisheries coop.	Others		Gasoline	Light oil	Heavy oil		
							kℓ	kℓ	kℓ	kℓ	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

(4) Workshop for engine

	Name	Type of management				No. of workers
		Individual	Company	Fisheries coop.	Others	
1						
2						
3						
4						
5						

(5) Fishing net maker

	Name	Type of management				No. of workers
		Individual	Company	Fisheries coop.	Others	
1						
2						
3						
4						
5						

Name of fishery district	

II. FISH MARKET & FISH WHOLESALER

1. Fish Market

Name of fish market			1	2	3	4
Owner of market facilities *1						
Facilities	Area for sale (m^2)					
	Area for sale with roof (m^2)					
	Railways linked		Avail- able. Not available	Avail- able. Not available	Avail- able. Not available	Avail- able. Not available
	Parking area		Avail- able. Not available	Avail- able. Not available	Avail- able. Not available	Avail- able. Not available
No. of fish wholesalers						
Number of days operated in a year						
Annual transac- tion	Quantity (t)	Total				
		Landing				
		Transfored from other area				
	Value (10^4 Yen)					
Name of fishing port (mainly used)						
	Type of the fishing port					

2. Fish Wholesaler

Name of wholesaler			1	2	3	4	5
Fish market to which the wholesaler belongs (Serial no. of fishing market as identified above)							
Type of management *2							
No. of workers (person)		Total					
		Male					
		Female					
Annual transac- tion	Quantity (t)	Total					
		Landing					
		Transfered from other area					
	Value (10^4 yen)						
Name of fishing port							
	Code no. of fishing port *3						

(Code No. for *1, *2 and *3)

Type of owner	
Local government	1
Fisheries coop.	2
Federation of fisheries coop.	3
Company	4
Individual	5

Type of management system	
Fisheries coop.	1
Federation of fisheries coop.	2
Company	3
Individual	4
Others	5

Type of fishing port		
Fishing port	Type 1	1
	Type 2	2
	Type 3	3
	Type 4	4
Commercial port		5

Name of fishery district	

III. FACILITIES OF FISHING PORT AND ITS UTILIZATION

1. Facilities of Fishing Port

Name of fishing port			1	2	3	4
Type of fishing Port						
Location						
Organization responsible for the management						
Length of the breakwaters (m)						
Moaring facilities	Pier	Length (m)				
		Max. depth (m)				
	Landing area (m)					
	Area for placing boats on land	Length (m)				
		Area (m^2)				
Area for anchorage (m^2)						

2. Number and Total Tonnage of Fishing Boats Entered During the Past One Year

No. of local fishing boats	Non-powered boat					
	Out-board powered boat					
	Powered boat	Total				
		Less than 10 tons				
		10 ∿ 50				
		50 ∿ 100				
		100 tons and over				
No. of fishing boats entered from other area	Non-powered boat					
	Out-board powered boat					
	Powered boat	Total				
		Less than 10 tons				
		10 ∿ 50				
		50 ∿ 100				
		100 tons and over				
Total tonnage of powered fishing boats entered (t)		Total				
		Local boat				
		Boats (from other area)				

3. Tonnage of the Largest Fishing Boat Entered During the Past One Year

Tonnage of the largest fishing boat entered (t)				

4. No. of Boats Other than Fishing Boat which Entered During the Past One Year

No. of boats entered				

Name of fishery district	

IV. FISHERIES COOPERATIVES

1. General Status of Cooperatives

Name of cooperative	1	2	3	4
Type of cooperative				
Capital paid (10^3 yen)				
No. of regular members				

2. Type of Business (o mark for whichever applicable)

Credit							
Sale of catch							
Purchase	For fisheries commodities	Fuel oil	Heavy oil				
			Others				
		Fishing net & gear					
		Fishing apparatus and materials					
		Bait and feedstuff					
		Fish seeds for aquaculture					
		Materials for aquaculture					
		Fish container					
		Others					
	Commodities for daily life						
	Commodities for agriculture and others						
Supply of various services	Ice-making						
	Cold storage						
	Freezing						
	Power generating & battery charging						
	Ferry boat						
	Guide for leisure fishing						
	Warehouse						
	Fish carrier						
	Truck						
	Joint fish processing plant						
	Boat landing facilities						
	Artificial fish seed facilities facility						
	Clinic						
	Fisherman's apartment house						
	Radio station						
Extension services	Education and information service						
	Propagation and protection						
	Technical improvement						
	Improvement of daily life						
	Salvage service						
Others	Fisheries insurance						
	Other insurances						

To be surveyed only for river cooperatives

[IV] Member of river fisheries cooperatives

1 Number of members by number of days fished

No.of days fished / Name of water system	Total No.	Never fished	29 days and below	30-89 days	90-149 days	More than 150 days
Total						

2 Number of members by type of fishing gear

Type of fishing gear / Name of water system	Net fishing			Angling	
	Gill net	Cast net	Other net fishing		
Total					

3 Number of members by species

Species / Name of water system	Fish										Shellfish		
	Salmon		Sweet fish	Of which, the seeds	Carp	Crucian carp	Dace	Eel	of which, the seeds of eel	Others	Freshwater clam	Other shell fish	Others
	Anadromous	Landlocked											
Total													

4 Number of members in terms of availability of fishing boat used

Name of water system	Total	Used		Not used
		Non-powerd boat	Powered boat	
Total				

5 Number of members by size of sale

Amount of sale / Name of water system	Total	Less than 50,000 yen	50,000-100,000 yen	100,000-300,000 yen	300,000-500,000 yen	500,000-1,000,000 yen	More than 1,000,000 yen
Total							

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Ministry of Agriculture, Forestry and Fisheries
Designated Statistics No. 7
Fishery Census

Form No. 9

The Sixth Fishery Census
Fishery District Survey
QUESTIONNAIRE FOR FISH DEALERS

Date of Survey : Nov. 1st, 1978

Coastal region	
Prefecture (Regional Office)	
Municipality	
Fishery district	
Fish market	
Type of fishing port	

Serial No.	Name of fish dealers	Type of management			Residence			Type of business (o mark for the main one)						Number of workers	Annual amount of sale (o mark for whichever applicable)							
		Individual	Company	Others	Within this prefecture		Other prefectures	Shipping to other area	Wholesaler	Fish processing	Retailer		Others		Less than 1 million yen	1 ∿ 5 million yen	5 ∿ 10 million	10 ∿ 50 million	50 ∿ 100 million	100 ∿ 500 million	500 million ∿ 1 billion	1 billion yen and over
					Within this municipality	Other municipality					With store	Without store										
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Designated Statistics No.67
Fishery Census

Form No.10

The Sixth Fishery Census
Fishery District Survey
QUESTIONNAIRE FOR ICE-MAKING, COLD STORAGE AND FREEZING PLANTS

Date of survey : Nov. 1st, 1978

Coastal region	
Prefecture (Regional Office)	
Municipality	
Fishery district	

Serial No.	Name	Type of management					Name of the fishing port for which the activity is related	Type of fishing port	Capacities							Number of workers	Usage		Type of users (o mark whichever applicable and ◎ mark for the main)							
		Individual	Company	Cooperatives		Others			Ice-making capacity (t/Day)	Cold storage capacity (t)							For commercially use	For own business use	For commercially use						For own business use
				Fisheries coop.	Other cooperatives					Total	of which that for storing ice	Class F	Class C^1	Class C^2	Class C^3	Freezing capacity (t/Day)			Fisheries cooperatives	Cooperative member	Fishing company	Fish wholesaler	Fish dealer	Fish processer	Others	
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Designated Statistics No.67
Fishery Census

Form No.11

The Sixth Fishery Census
Fishery District Survey
QUESTIONNAIRE FOR FISH PROCESSING PLANT

Date of survey : Nov. 1st, 1978

Coastal region	
Prefecture (Regional Office)	
[illegible]	
Fishery district	

Serial No.	Name of person or plant	Type of management					Type of association joined				Type of fish processing engaged (○ mark for whichever applicable and ◎ mark for the main one)																		Name of fishing port for which the activity is related	Code type of fishing port	Total member of days operated in a year (days)	Number of workers (persons)	Annual amounts of products sold							
		Individual	Company	Cooperative		Others	Fish processing cooperative	Small- and medium scale enterprise cooperative	Other associations	Non-member for any association	Canning, bottling	Fish cakes		Frozen			Salted and dried				Smoked	Dried "Fu-shi"	Shaved fish meat	"Tsuku-dani"	Pro-cessed laver	Agar-agar	Other proces-sing	Fish oil	Feedstuff and fertilizer									
				Fisheries cooperative.	Others							"Ka-ma-bo-ko"	Fish meat ham and sausage	Frozen foods	Frozen fish meat paste	Other fish and shell-fish	Dried	Salted and dried	Boiled and dried	Salted											Less than 1 million yen	1 ∿ 5 million	5 ∿ 10 million	10 ∿ 50 million	50 ∿ 100 million	100 ∿ 500 million	500 million ∿ 1 billion	1 billion yen and over
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